APX. 7–2–4 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
91	AE12N	5	<0.2	10	3.10	31	270	30	1	8	<0.2	0.4	80
92	AE13N	7	<0.2	6	2.60	24	200	40	1	6	<0.2	<0.2	52
93	AE14N	2	<0.2	14	2.20	13	340	40	1	2	0.2	0.4	36
94	AE01S	23	<0.2	76	6.30	41	20	40	14	33	0.4	5.4	3
95	AE02S	12	<0.2	8	3.00	25	30	40	5	21	<0.2	1.0	14
96	AE03S	10	<0.2	12	5.50	21	30	40	2	8	0.2	2.0	6
97	AE04S	6	<0.2	16	3.50	19	35	40	2	4	0.2	0.6	5
98	AE05S	10	<0.2	22	4.40	24	100	60	2	9	0.2	1.4	11
99	AE06S	7	<0.2	10	2.30	22	180	100	2	8	<0.2	0.6	13
100	AE07S	14	<0.2	16	3.35	46	60	80	2	12	0.4	1.2	13
101	AE08S	11	<0.2	26	3.80	32	215	50	3	7	0.4	1.4	11
102	AE09S	16	<0.2	30	4.25	33	30	50	2	14	0.6	2.4	8
103	AE10S	64	<0.2	156	6.70	48	35	60	5	13	15.0	3.4	7
104	AE11S	67	<0.2	68	5.65	26	25	40	3	18	4.8	3.6	5
105	AE12S	10	<0.2	34	6.20	30	30	70	2	13	1.2	2.2	7
106	AE13S	22	<0.2	26	5.45	24	30	60	2	18	1.4	2.4	8
107	AE14S	14	<0.2	56	7.80	40	30	50	2	23	2.0	3.6	6
108	AE15S	10	<0.2	20	3.70	23	60	60	1	3	0.4	1.0	6
109	AE16S	14	<0.2	22	4.50	21	30	50	1	7	0.8	1.4	6
110	AE17S	12	<0.2	14	3.00	9	30	40	2	7	0.4	0.8	4
111	AE18S	34	<0.2	28	4.00	12	20	50	2	21	0.8	2.2	4
112	AE19S	91	0.4	32	5.10	12	25	60	2	50	2.8	2.8	4
113	AE20S	56	<0.2	36	4.10	11	40	50	1	30	5.0	1.2	7
114	AE21S	18	<0.2	24	3.45	4	40	40	2	11	0.6	1.2	5
115	AE22S	41	<0.2	66	4.60	39	40	60	2	31	1.8	2.2	7
116	AE23S	5	<0.2	14	3.70	34	260	40	2	2	<0.2	0.2	17
117	AE24S	7	<0.2	10	5.30	114	880	50	3	4	0.2	0.4	74
118	AE25S	4	<0.2	12	5.60	87	990	40	1	2	0.2	0.6	106
119	AF00	28	<0.2	56	4.40	14	20	40	17	20	0.6	3.2	5
120	AF01N	14	<0.2	40	4.40	8	15	50	7	19	0.6	2.4	5

Mt. APITON area

APX. 7–2–5 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
121	AF02N	10	<0.2	14	3.80	24	10	50	5	7	0.2	1.4	5
122	AF03N	9	<0.2	4	4.10	57	20	40	6	8	<0.2	2.0	8
123	AF04N	4	<0.2	10	3.00	25	10	50	3	7	<0.2	1.4	4
124	AF05N	8	<0.2	14	3.70	17	10	50	3	15	0.2	1.6	4
125	AF06N	7	<0.2	16	3.75	16	10	50	2	11	0.2	1.4	5
126	AF07N	4	<0.2	8	2.00	14	5	40	4	6	0.2	0.6	5
127	AF08N	3	<0.2	10	2.45	15	10	40	3	4	0.2	0.8	4
128	AF09N	3	<0.2	6	1.80	10	10	40	3	5	0.2	0.4	4
129	AF10N	7	<0.2	20	1.45	4	30	40	2	11	0.4	0.6	4
130	AF11N	1	<0.2	10	1.10	6	50	50	3	5	0.2	1.0	4
131	AF12N	3	<0.2	6	1.10	4	70	40	3	2	0.2	0.6	4
132	AF13N	10	<0.2	46	3.40	42	60	40	3	8	0.8	0.6	36
133	AF14N	11	<0.2	88	3.40	46	670	50	2	1	1.0	0.2	70
134	AF01S	34	<0.2	72	5.80	27	15	60	18	30	0.8	3.6	6
135	AF02S	19	<0.2	18	3.60	14	10	50	10	7	0.4	1.2	4
136	AF03S	21	<0.2	26	3.70	14	10	60	5	8	0.4	1.4	4
137	AF04S	28	<0.2	34	4.10	23	10	70	4	7	0.8	1.6	6
138	AF05S	59	<0.2	50	6.40	33	15	70	6	6	0.8	3.8	6
139	AF06S	39	<0.2	26	4.00	25	20	60	5	5	0.8	1.6	6
140	AF07S	22	<0.2	20	3.40	18	10	60	2	3	0.4	1.8	6
141	AF08S	42	<0.2	10	2.35	20	70	90	1	10	0.2	<0.2	7
142	AF09S	33	<0.2	12	2.30	20	20	70	2	8	0.8	0.8	4
143	AF10S	73	<0.2	30	5.60	29	70	80	4	29	2.8	2.2	10
144	AF11S	87	<0.2	34	7.45	37	40	70	3	29	2.0	4.0	6
145	AF12S	80	<0.2	34	8.90	23	30	70	4	44	1.4	5.6	6
146	AF13S	42	<0.2	28	6.30	21	35	80	2	22	1.4	2.4	8
147	AF14S	78	0.3	66	8.70	23	30	70	3	42	2.4	5.6	6
148	AF15S	51	<0.2	36	8.10	26	40	50	3	24	1.6	4.2	7
149	AF16S	165	<0.2	24	4.10	12	60	90	2	50	0.6	2.2	7
150	AF17S	63	0.2	24	5.95	22	50	50	3	26	0.6	2.8	6

APX. 7–2–6 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
151	AF18S	33	0.2	10	6.00	19	160	70	3	14	0.2	1.4	8
152	AF19S	27	<0.2	10	4.00	15	140	70	2	12	0.2	0.2	8
153	AF20S	20	<0.2	8	3.50	9	100	50	2	15	<0.2	0.8	8
154	AF21S	50	<0.2	24	3.00	16	295	70	2	26	0.4	1.0	8
155	AF22S	43	<0.2	16	2.85	16	330	70	2	25	0.8	0.6	9
156	AF23S	32	<0.2	4	2.80	29	480	70	2	24	0.2	0.4	11
157	AF24S	29	<0.2	2	2.20	20	400	70	2	19	0.2	0.4	9
158	AF25S	37	<0.2	8	2.00	19	220	60	2	17	0.4	<0.2	8
159	AF26S	49	<0.2	6	2.10	25	760	80	2	26	0.4	<0.2	18
160	AF27S	38	<0.2	8	2.60	42	430	80	2	18	0.2	0.2	19
161	AF28S	33	<0.2	6	2.30	37	750	70	2	18	0.2	0.2	24
162	AG00	27	<0.2	20	4.60	16	25	50	14	15	0.4	3.2	4
163	AG01N	7	<0.2	2	1.50	12	15	50	4	8	<0.2	<0.2	3
164	AG02N	14	<0.2	6	3.80	37	50	40	5	22	0.2	1.4	6
165	AG03N	13	<0.2	4	4.30	32	50	40	22	36	<0.2	1.2	6
166	AG04N	7	<0.2	18	5.80	43	25	50	6	13	<0.2	3.4	4
167	AG05N	11	<0.2	20	6.40	20	30	60	3	15	0.4	3.2	5
168	AG06N	11	<0.2	6	5.20	53	20	50	4	5	<0.2	1.8	4
169	AG01S	62	<0.2	42	2.50	16	20	50	12	29	1.0	2.0	3
170	AG02S	81	<0.2	40	2.80	15	35	50	22	32	1.8	1.2	4
171	AG03S	65	<0.2	42	3.50	21	25	50	18	17	2.2	2.6	6
172	AG04S	61	<0.2	44	3.20	23	30	70	10	20	3.0	1.2	7
173	AG05S	96	<0.2	44	2.50	25	30	80	7	19	3.4	1.4	6
174	AG06S	46	<0.2	30	2.20	20	80	70	5	14	2.4	0.6	5
175	AG07S	29	<0.2	10	2.50	23	230	80	2	8	0.8	0.2	10
176	AG08S	59	<0.2	14	4.20	38	80	70	3	11	0.4	1.4	9
177	AG09S	38	<0.2	14	3.00	22	85	60	1	14	1.2	0.6	8
178	AG10S	21	<0.2	4	4.10	40	70	40	2	6	0.2	0.8	11
179	AG11S	84	<0.2	58	7.00	46	80	60	3	25	3.6	2.8	10
180	AG12S	59	<0.2	10	3.90	20	145	70	2	16	1.2	0.8	8

Mt. APITON area

APX. 7–2–7 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
181	AG13S	28	<0.2	32	6.80	19	50	50	5	10	0.8	3.4	5
182	AG14S	12	<0.2	24	5.65	15	20	50	3	12	0.4	3.4	3
183	AG15S	12	<0.2	18	4.60	19	30	30	3	5	0.4	1.6	5
184	AG16S	8	<0.2	36	9.50	14	25	60	2	15	1.4	4.8	5
185	AL01	5	<0.2	22	1.60	7	240	70	2	7	0.2	0.2	9
186	AL02	19	<0.2	60	2.25	12	300	90	2	14	0.6	0.6	8
187	AL03	43	<0.2	208	3.30	43	110	90	3	26	2.4	1.6	5
188	AL04	30	<0.2	102	5.50	38	75	70	3	38	2.8	1.2	7
189	AL05	54	<0.2	110	5.70	39	45	70	2	56	3.2	1.8	6
190	AL06	90	<0.2	384	5.80	90	40	70	3	68	6.2	2.2	5
191	AL07	30	<0.2	74	6.20	20	45	80	4	23	1.8	1.4	8
192	AL08	24	<0.2	70	5.30	12	45	70	3	16	2.6	1.0	7
193	AL09	165	<0.2	70	7.00	14	45	80	4	16	2.2	1.2	6
194	AL10	42	<0.2	72	4.50	24	30	60	2	26	1.8	1.2	4
195	AL11	10	<0.2	22	5.40	28	30	40	2	12	0.8	1.4	4
196	AL12	22	<0.2	46	7.10	43	20	40	4	17	0.8	3.8	4
197	AL13	14	<0.2	4	3.00	23	20	50	5	9	0.4	0.8	4
198	AL14	11	<0.2	10	4.00	18	20	40	4	13	0.6	1.2	6
199	AL15	14	<0.2	24	4.80	22	30	50	4	13	0.8	1.4	6
200	AL16	48	<0.2	78	4.40	21	30	70	29	38	1.6	3.6	5
201	AL17	59	<0.2	20	3.20	22	20	60	33	31	1.2	2.4	6
202	AL18	70	<0.2	20	2.70	17	20	70	14	22	1.2	1.8	4

PUNTALES area

APX. 7–2–8 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
1	PA00	2	<0.2	2	1.50	33	25	20	12	<1	0.2	0.6	2
2	PA01N	8	<0.2	2	5.45	92	30	20	17	3	0.2	2.6	10
3	PA02N	3	<0.2	2	1.90	63	20	20	32	<1	0.2	1.2	2
4	PA03N	4	<0.2	2	2.90	98	30	20	35	1	0.2	1.6	3
5	PA04N	5	<0.2	6	3.30	46	35	30	10	5	0.2	1.4	6
6	PA05N	15	<0.2	2	2.95	62	60	20	7	2	<0.2	1.6	5
7	PA06N	7	<0.2	2	6.00	83	50	60	3	<1	0.4	1.6	8
8	PA07N	5	<0.2	8	2.10	34	30	20	5	2	0.6	1.0	3
9	PA08N	4	<0.2	2	6.80	97	90	30	4	8	0.2	1.0	18
10	PA01S	7	<0.2	4	3.45	90	35	30	10	1	0.2	1.6	16
11	PA02S	5	<0.2	2	3.70	119	40	20	2	<1	<0.2	1.2	10
12	PA03S	5	<0.2	2	1.90	32	30	20	7	<1	0.2	0.8	3
13	PA04S	3	<0.2	4	1.50	13	30	20	6	<1	0.4	0.8	2
14	PA05S	1	<0.2	8	1.00	12	25	20	5	<1	0.8	0.2	2
15	PA06S	8	<0.2	14	1.50	13	30	40	17	4	2.8	1.0	2
16	PA07S	8	<0.2	6	1.90	8	30	30	12	4	0.4	0.8	2
17	PA08S	7	<0.2	4	1.40	7	20	30	4	5	0.2	0.4	1
18	PA09S	3	<0.2	4	1.60	11	20	40	5	1	0.2	0.4	3
19	PA10S	3	<0.2	10	2.35	23	25	30	3	2	0.2	0.4	4
20	PA11S	<1	<0.2	12	1.70	16	30	30	2	5	0.2	0.2	3
21	PA12S	5	<0.2	12	3.10	22	50	70	3	5	0.4	1.2	8
22	PA13S	18	<0.2	46	5.30	37	25	60	3	6	1.0	3.6	14
23	PA14S	13	<0.2	14	9.10	51	20	40	8	3	0.8	4.8	7
24	PA15S	6	<0.2	12	4.30	32	30	40	7	6	0.4	2.8	6
25	PA16S	8	<0.2	12	4.40	23	30	60	4	12	0.4	1.8	6
26	PB00	4	<0.2	6	1.90	27	95	40	12	4	0.2	1.0	4
27	PB01N	6	<0.2	4	1.90	38	120	40	10	3	0.2	1.2	4
28	PB02N	6	<0.2	6	2.45	48	30	20	12	<1	0.2	1.2	2
29	PB03N	4	<0.2	6	1.40	23	25	10	15	<1	0.4	1.0	2
30	PB04N	8	<0.2	6	2.30	36	20	20	12	1	0.2	0.8	2

PUNTALES area

APX. 7–2–9 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
31	PB05N	11	<0.2	6	2.45	34	30	20	5	1	0.2	0.6	2
32	PB06N	7	<0.2	8	1.90	41	40	20	6	2	0.2	0.8	4
33	PB07N	6	<0.2	6	1.60	31	30	10	11	1	0.2	0.2	4
34	PB08N	8	<0.2	10	2.80	89	60	20	13	<1	0.2	0.8	10
35	PB09N	9	<0.2	10	3.90	120	95	30	21	2	<0.2	1.2	15
36	PB10N	20	<0.2	10	3.70	176	80	30	13	4	0.4	1.6	6
37	PB11N	10	<0.2	12	5.10	168	30	30	8	7	0.2	2.4	4
38	PB01S	2	<0.2	10	2.30	47	40	20	16	7	0.4	1.0	3
39	PB02S	5	<0.2	12	2.00	27	40	30	7	<1	0.2	0.8	4
40	PB03S	5	<0.2	10	0.45	10	20	40	4	<1	0.2	<0.2	3
41	PB04S	3	<0.2	2	0.30	1	30	30	2	<1	0.2	<0.2	2
42	PB05S	3	<0.2	2	5.00	39	1000	50	2	12	0.2	0.2	190
43	PB06S	2	<0.2	2	4.30	47	560	60	2	9	0.2	0.6	128
44	PB07S	2	<0.2	2	2.90	12	1100	50	<1	2	0.2	0.4	72
45	PB08S	1	<0.2	2	4.40	50	1100	40	1	3	0.2	0.4	112
46	PB09S	2	<0.2	8	2.20	27	80	40	1	3	0.4	0.8	19
47	PB10S	<1	<0.2	4	1.00	4	30	30	1	1	0.2	0.4	5
48	PB11S	4	<0.2	10	3.75	114	460	40	2	12	0.4	1.4	38
49	PB12S	<1	<0.2	8	1.95	14	145	40	<1	6	0.2	0.4	16
50	PB13S	1	<0.2	4	2.10	34	100	40	1	5	0.6	0.8	21
51	PB14S	2	<0.2	6	2.90	30	30	40	2	2	0.2	1.0	10
52	PB15S	3	<0.2	8	4.50	30	210	50	2	11	0.4	0.8	18
53	PB16S	3	<0.2	8	3.20	26	130	60	1	2	0.4	1.4	12
54	PB17S	3	<0.2	4	3.20	44	565	70	1	6	0.2	1.0	27
55	PB18S	4	<0.2	8	4.40	39	540	80	2	10	0.2	1.2	40
56	PB19S	4	<0.2	12	5.20	60	930	70	1	2	0.2	1.0	44
57	PB20S	99	<0.2	44	5.35	73	50	40	5	27	1.8	3.2	12
58	PC00	5	<0.2	10	6.20	104	1800	50	1	4	<0.2	0.6	118
59	PC01N	3	<0.2	4	7.10	120	680	40	1	5	0.2	0.4	190
60	PC02N	2	<0.2	8	3.30	33	360	30	1	2	0.2	<0.2	76

APX. 7–2–10 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
61	PC03N	4	<0.2	6	3.90	54	1200	40	1	6	0.2	<0.2	124
62	PC04N	4	<0.2	2	4.70	58	1500	50	<1	5	0.2	0.2	178
63	PC05N	4	<0.2	1	6.10	65	1400	50	1	3	0.2	0.2	98
64	PC06N	4	<0.2	2	3.50	71	1500	60	<1	4	0.2	<0.2	36
65	PC07N	4	0.2	1	5.45	68	2200	70	1	7	0.2	<0.2	104
66	PC08N	2	<0.2	1	6.20	86	1700	40	<1	10	0.2	0.6	140
67	PC09N	3	<0.2	2	4.20	58	990	40	1	6	0.2	0.2	84
68	PC10N	2	<0.2	4	2.60	63	1450	30	1	3	<0.2	0.2	54
69	PC11N	1	<0.2	4	2.50	26	2000	40	1	7	0.2	0.2	142
70	PC12N	2	<0.2	2	2.90	16	690	40	<1	7	0.4	0.4	54
71	PC13N	2	<0.2	1	2.80	50	530	30	<1	4	0.2	0.4	26
72	PC14N	4	<0.2	1	5.50	70	840	40	1	3	0.2	0.2	42
73	PC15N	<1	<0.2	<1	2.70	19	80	20	1	<1	<0.2	<0.2	11
74	PC16N	2	<0.2	2	4.50	31	200	40	2	<1	0.2	0.8	19
75	PC17N	1	<0.2	2	4.70	34	60	30	2	2	0.2	0.6	11
76	PC18N	2	<0.2	2	5.50	87	220	30	2	4	0.2	0.6	29
77	PC01S	3	<0.2	8	3.60	42	500	40	7	2	0.4	0.6	56
78	PC02S	7	<0.2	2	4.50	92	500	50	1	21	0.2	0.8	68
79	PC03S	2	<0.2	<1	4.30	75	920	50	<1	5	0.2	0.8	126
80	PC04S	2	<0.2	<1	7.10	46	1800	60	1	4	0.2	0.6	92
81	PC05S	4	<0.2	1	5.90	85	960	70	1	7	0.4	0.6	58
82	PC06S	2	<0.2	<1	4.70	232	1100	50	1	15	0.2	0.8	46
83	PC07S	3	0.2	<1	3.00	90	1200	70	1	17	0.2	0.4	24
84	PC08S	2	<0.2	<1	5.85	91	1200	70	1	6	0.2	0.6	98
85	PC09S	<1	<0.2	<1	1.90	24	180	50	2	3	0.2	1.0	10
86	PC10S	<1	<0.2	1	2.25	36	350	60	2	3	0.2	0.8	37
87	PC11S	1	0.2	2	1.25	11	115	50	2	3	0.4	<0.2	10
88	PC12S	4	<0.2	1	3.50	40	260	70	2	13	0.4	0.8	36
89	PC13S	3	0.2	1	2.40	25	40	60	<1	3	0.4	1.0	8
90	PC14S	3	<0.2	<1	3.85	52	110	70	2	12	0.4	1.4	26

PUNTALES area

APX. 7–2–11 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
91	PC15S	2	<0.2	<1	1.90	16	40	60	1	1	0.4	0.6	6
92	PC16S	5	<0.2	<1	3.15	38	50	50	2	<1	0.2	0.6	9
93	PC17S	5	<0.2	<1	3.30	49	90	60	1	3	<0.2	1.0	14
94	PD00	8	<0.2	<1	2.70	63	20	50	10	12	0.2	2.4	2
95	PD01N	3	<0.2	1	5.10	88	50	50	5	70	0.2	6.2	10
96	PD02N	1	<0.2	2	0.80	16	30	40	4	12	0.2	0.8	1
97	PD03N	3	<0.2	1	2.40	56	60	40	2	7	0.2	<0.2	40
98	PD04N	<1	<0.2	1	1.50	42	80	30	1	5	<0.2	<0.2	26
99	PD05N	2	<0.2	1	1.30	21	55	30	1	6	<0.2	<0.2	8
100	PD06N	<1	<0.2	2	0.90	30	210	40	1	4	<0.2	<0.2	12
101	PD01S	<1	<0.2	1	0.90	20	20	30	2	9	<0.2	<0.2	2
102	PD02S	<1	<0.2	2	0.85	38	270	40	1	12	0.2	0.2	36
103	PD03S	<1	<0.2	2	0.70	12	190	30	<1	12	0.2	0.2	58
104	PD04S	<1	<0.2	1	1.30	24	70	30	1	17	0.2	0.4	31
105	PD05S	1	<0.2	1	1.70	84	480	50	1	8	<0.2	<0.2	68
106	PD06S	2	<0.2	2	4.30	42	500	40	1	10	<0.2	0.2	88
107	PD07S	<1	<0.2	<1	4.20	46	540	40	1	<1	<0.2	<0.2	48
108	PD08S	4	<0.2	<1	4.20	79	660	50	<1	2	<0.2	0.6	40

APX. 7–3–1 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
1	UD-1-01	1	<0.2	20	4.80	80	10	90	4	<1	<0.20	13.00	3
2	UD-1-02	3	<0.2	20	5.30	14	15	20	4	<1	<0.20	6.60	3
3	UD-1-03	10	<0.2	6	4.00	26	5	20	1	<1	<0.20	5.80	2
4	UD-1-04	2	<0.2	1	2.60	25	5	20	<1	2	<0.20	4.00	1
5	UD-1-05	2	<0.2	1	6.80	38	5	40	<1	<1	<0.20	9.60	2
6	UD-1-06	1	<0.2	2	3.80	192	10	60	1	<1	<0.2	1.8	1
7	UD-1-07	2	<0.2	2	4.15	160	10	50	1	<1	<0.2	1.4	3
8	UD-1-08	2	<0.2	6	4.30	142	10	100	1	<1	<0.2	2.2	2
9	UD-1-09	<1	<0.2	2	3.20	127	5	90	2	<1	<0.2	0.8	2
10	UD-1-10	<1	<0.2	14	3.60	197	5	60	1	<1	<0.2	1.2	4
11	UD-1-11	<1	<0.2	2	2.95	100	10	50	<1	<1	<0.2	2.2	<1
12	UD-1-12	1	<0.2	4	2.40	86	5	60	1	<1	<0.2	2.6	<1
13	UD-1-13	1	<0.2	10	2.40	90	10	60	1	<1	<0.2	1.6	<1
14	UD-1-14	<1	<0.2	6	3.20	102	10	70	<1	<1	<0.2	1.0	1
15	UD-1-15	1	<0.2	14	2.60	93	10	40	1	<1	<0.2	1.0	1
16	UD-1-16	2	<0.2	6	3.00	100	10	70	1	<1	<0.2	0.8	2
17	UD-1-17	<1	<0.2	6	1.90	80	10	50	1	<1	<0.2	1.6	<1
18	UD-1-18	2	<0.2	2	2.80	48	10	40	<1	<1	<0.2	1.4	1
19	UD-1-19	<1	<0.2	2	4.30	90	20	70	1	<1	<0.2	1.4	3
20	UD-1-20	2	<0.2	40	4.35	85	20	60	1	<1	0.2	5.6	2
21	UD-1-21	1	<0.2	2	4.40	124	20	120	3	<1	<0.2	5.2	4
22	UD-1-22	1	<0.2	4	3.45	78	15	60	1	<1	<0.2	5.4	4
23	UD-1-23	<1	<0.2	4	3.45	80	15	70	1	<1	<0.2	4.4	2
24	UD-1-24	1	<0.2	6	2.70	94	10	90	2	<1	<0.2	1.6	2
25	UD-1-25	1	<0.2	6	2.90	106	10	90	1	<1	<0.2	2.2	2
26	UD-1-26	2	<0.2	8	3.60	148	10	120	1	<1	<0.2	1.8	2
27	UD-1-27	1	<0.2	2	4.10	107	15	110	1	<1	<0.2	3.6	2
28	UD-1-28	1	<0.2	6	3.55	107	10	160	1	<1	<0.2	4.6	2
29	UD-1-29	1	<0.2	2	3.40	93	15	130	1	<1	0.2	3.4	4
30	UD-1-30	<1	<0.2	2	3.50	80	10	80	1	<1	<0.2	2.0	3

MJPP-1(UD-1)

APX. 7–3–2 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
31	UD-1-31	2	<0.2	2	3.00	66	20	60	39	<1	<0.2	3.2	32
32	UD-1-32	1	<0.2	14	4.00	118	15	80	1	<1	0.2	2.2	4
33	UD-1-33	2	<0.2	10	4.50	120	20	90	1	<1	<0.2	2.6	5
34	UD-1-34	<1	<0.2	2	3.00	54	20	50	2	<1	<0.2	1.8	4
35	UD-1-35	2	<0.2	18	2.90	108	30	70	1	<1	<0.2	5.2	3
36	UD-1-36	2	<0.2	14	3.70	90	180	20	4	5	<0.2	1.0	26
37	UD-1-37	1	<0.2	2	5.10	117	1500	10	2	<1	<0.2	<0.2	96
38	UD-1-38	4	<0.2	8	3.90	44	20	20	6	<1	0.2	0.8	9
39	UD-1-39	4	<0.2	18	4.80	107	30	20	3	10	0.2	2.8	19
40	UD-1-40	3	<0.2	22	4.70	100	20	10	2	9	0.4	4.0	88
41	UD-1-41	5	<0.2	20	4.90	102	10	20	2	20	0.2	2.4	123
42	UD-1-42	2	<0.2	14	5.00	117	30	10	1	4	0.2	1.6	67
43	UD-1-43	4	<0.2	22	4.80	106	20	10	3	11	0.4	2.4	89
44	UD-1-44	5	<0.2	22	4.80	98	20	10	2	11	0.2	2.6	87

APX. 7–3–3 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
1	UD-2-01	3	1.0	30	4.20	48	10	120	6	<1	0.60	3.80	2
2	UD-2-02	3	0.4	26	5.60	57	10	70	3	2	0.60	7.60	2
3	UD-2-03	3	0.3	6	2.30	42	20	40	3	6	0.40	4.20	1
4	UD-2-04	7	0.5	24	4.40	71	10	40	2	16	0.40	30.00	1
5	UD-2-05	5	<0.2	42	5.50	60	20	30	<1	17	1.00	8.20	3
6	UD-2-06	3	0.6	76	6.80	26	10	30	<1	<1	1.20	8.20	2
7	UD-2-07	4	0.2	20	5.40	46	10	20	1	2	0.20	9.60	1
8	UD-2-08	3	0.2	40	5.50	44	10	20	<1	2	0.20	9.20	2
9	UD-2-09	<1	0.2	20	3.70	32	10	20	<1	1	0.20	4.60	1
10	UD-2-10	2	0.2	28	6.80	35	10	20	<1	<1	0.20	10.60	2
11	UD-2-11	<1	0.2	32	6.70	33	10	20	<1	<1	0.20	8.40	1
12	UD-2-12	4	0.2	20	2.40	5	10	20	<1	2	0.20	4.40	1
13	UD-2-13	4	<0.2	8	1.30	25	10	530	<1	3	0.20	2.20	1
14	UD-2-14	2	<0.2	4	1.60	164	10	140	6	<1	<0.20	1.80	1
15	UD-2-15	5	0.2	2	2.40	6	10	300	2	1	0.20	7.20	1
16	UD-2-16	3	<0.2	38	1.70	12	10	230	<1	3	0.20	6.40	1
17	UD-2-17	2	<0.2	8	1.50	180	10	330	<1	2	<0.20	3.80	<1
18	UD-2-18	6	<0.2	8	2.00	5	10	290	1	3	0.20	5.80	1
19	UD-2-19	2	<0.2	20	4.00	200	10	160	<1	<1	<0.20	5.20	2
20	UD-2-20	3	<0.2	8	5.00	167	10	310	<1	4	0.20	9.60	1
21	UD-2-21	7	<0.2	16	2.90	48	10	260	<1	6	0.20	6.40	1
22	UD-2-22	22	0.2	6	2.60	380	10	180	<1	3	<0.20	4.20	1
23	UD-2-23	6	0.2	28	10.00	320	40	600	<1	<1	0.20	5.60	5
24	UD-2-24	4	<0.2	28	4.50	400	20	190	<1	<1	<0.20	4.40	5
25	UD-2-25	2	<0.2	6	5.30	240	10	260	<1	<1	0.20	6.20	3
26	UD-2-26	2	<0.2	2	5.50	182	20	470	<1	<1	0.20	4.40	4
27	UD-2-27	3	<0.2	2	5.50	152	20	220	<1	<1	0.20	8.00	2
28	UD-2-28	3	<0.2	2	1.90	122	10	70	<1	2	<0.20	4.00	2
29	UD-2-29	2	<0.2	30	2.20	136	10	100	<1	2	<0.20	3.00	2
30	UD-2-30	8	<0.2	36	2.90	196	5	160	<1	<1	<0.20	3.00	9

MJPP-2(UD-2)

APX. 7-3-4 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
31	UD-2-31	2	<0.2	<1	3.60	80	10	150	<1	<1	<0.20	3.20	5
32	UD-2-32	9	<0.2	1	2.20	66	5	120	<1	<1	<0.20	3.40	2
33	UD-2-33	3	<0.2	2	4.60	300	10	320	<1	<1	<0.20	9.40	5
34	UD-2-34	6	<0.2	10	4.30	140	10	210	1	<1	<0.20	3.00	6
35	UD-2-35	3	<0.2	1	3.10	76	20	140	1	<1	<0.20	1.80	4
36	UD-2-36	4	<0.2	2	3.30	78	10	110	<1	<1	<0.20	4.00	6
37	UD-2-37	3	<0.2	1	3.90	79	10	110	<1	<1	<0.20	7.60	5
38	UD-2-38	3	<0.2	1	3.80	66	10	90	<1	2	<0.20	3.20	6
39	UD-2-39	2	<0.2	34	5.40	130	5	140	9	<1	0.6	4.8	5
40	UD-2-40	3	<0.2	32	5.40	4	10	10	20	7	0.6	9.2	3
41	UD-2-41	<1	<0.2	26	4.70	208	5	20	1	<1	0.2	4.0	11

APX. 7-3-5 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
1	UD-3-01	2	<0.2	2	1.40	227	20	10	3	<1	<0.2	0.6	8
2	UD-3-02	2	<0.2	20	4.75	41	15	10	4	<1	0.2	7.2	1
3	UD-3-03	1	<0.2	14	3.40	23	15	10	2	<1	0.2	2.4	<1
4	UD-3-04	3	<0.2	4	1.00	4	20	10	13	6	<0.2	2.0	<1
5	UD-3-05	5	<0.2	30	8.50	13	15	40	1	<1	<0.2	12.2	2
6	UD-3-06	1	<0.2	38	4.10	15	15	10	1	<1	0.2	11.0	1
7	UD-3-07	1	<0.2	2	2.50	11	10	40	1	<1	<0.2	6.4	<1
8	UD-3-08	2	<0.2	18	4.30	140	10	70	4	<1	<0.2	11.8	2
9	UD-3-09	3	<0.2	66	3.80	14	10	50	1	<1	0.4	8.4	2
10	UD-3-10	<1	<0.2	10	3.90	103	<5	60	1	<1	0.2	3.8	3
11	UD-3-11	<1	<0.2	16	3.40	124	5	50	1	<1	0.2	1.6	3
12	UD-3-12	15	<0.2	14	7.40	15	10	520	4	<1	0.2	27.0	3
13	UD-3-13	3	<0.2	16	2.70	24	10	50	1	2	0.6	9.2	2
14	UD-3-14	3	<0.2	2	2.90	139	<5	130	1	<1	0.2	2.4	3
15	UD-3-15	4	<0.2	2	1.30	4	10	20	1	4	0.4	4.8	1
16	UD-3-16	2	<0.2	8	7.00	97	<5	150	1	<1	0.2	6.6	8
17	UD-3-17	3	<0.2	18	5.50	29	5	190	1	<1	0.4	11.8	4
18	UD-3-18	<1	<0.2	14	7.80	90	<5	130	1	<1	0.2	15.0	5
19	UD-3-19	1	<0.2	10	6.00	130	<5	140	1	<1	0.2	11.4	5
20	UD-3-20	168	<0.2	10	7.30	74	10	20	1	<1	0.6	29.0	3
21	UD-3-21	318	<0.2	56	10.60	24	<5	30	2	<1	1.4	43.0	3
22	UD-3-22	87	<0.2	192	5.80	40	5	20	1	<1	1.8	15.2	2
23	UD-3-23	34	<0.2	204	3.00	11	5	10	1	1	5.2	6.6	1
24	UD-3-24	2	<0.2	16	4.80	15	<5	40	5	<1	0.4	5.0	2
25	UD-3-25	12	<0.2	24	4.50	370	10	100	1	<1	0.4	2.6	4
26	UD-3-26	56	<0.2	166	1.30	16	<5	10	1	<1	2.8	4.4	<1
27	UD-3-27	10	<0.2	20	1.60	4	10	10	2	5	0.4	6.0	<1
28	UD-3-28	4	<0.2	2	3.10	148	<5	80	1	<1	0.2	1.4	5
29	UD-3-29	7	<0.2	12	3.40	310	15	120	1	3	0.2	2.6	6
30	UD-3-30	12	<0.2	16	5.50	260	<5	160	1	<1	0.2	1.8	7

APX. 7–3–6 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
31	UD-3-31	12	<0.2	104	1.90	38	5	190	1	<1	1.6	5.8	<1
32	UD-3-32	1	<0.2	4	4.90	212	15	120	1	<1	0.2	1.4	3
33	UD-3-33	<1	<0.2	8	3.40	198	10	100	1	<1	0.2	1.6	6
34	UD-3-34	6	<0.2	8	1.80	270	5	150	1	2	0.2	5.0	2
35	UD-3-35	3	<0.2	6	5.00	405	20	170	1	<1	0.2	2.2	4
36	UD-3-36	1	<0.2	6	3.50	465	5	120	1	<1	0.2	1.6	5
37	UD-3-37	3	<0.2	10	2.60	100	<5	70	1	<1	0.2	1.8	2
38	UD-3-38	<1	<0.2	12	2.90	120	10	80	1	<1	0.2	1.0	2
39	UD-3-39	8	<0.2	18	2.70	100	10	60	1	1	0.4	3.4	4
40	UD-3-40	11	<0.2	128	2.10	400	15	370	1	3	2.8	4.0	950
41	UD-3-41	2	<0.2	8	4.90	120	50	30	2	<1	<0.2	2.4	17
42	UD-3-42	<1	<0.2	12	2.40	66	15	50	2	<1	0.2	3.4	2
43	UD-3-43	<1	<0.2	18	2.00	78	<5	30	1	<1	0.2	2.4	3
44	UD-3-44	1	<0.2	6	4.40	122	30	10	1	<1	<0.2	1.8	12
45	UD-3-45	<1	<0.2	8	4.10	140	50	10	1	<1	<0.2	1.6	13
46	UD-3-46	1	<0.2	4	4.50	106	40	10	1	<1	0.2	1.8	13
47	UD-3-47	1	<0.2	12	4.50	126	30	10	1	<1	<0.2	2.0	13
48	UD-3-48	3	<0.2	14	2.80	62	5	10	2	<1	<0.2	2.4	2
49	UD-3-49	1	<0.2	8	4.60	116	50	10	1	<1	<0.2	2.8	10
50	UD-3-50	2	<0.2	10	4.40	115	50	10	1	<1	<0.2	2.2	12

APX. 7–3–7 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
1	MD-4-01	919	1.4	28	6.80	62	20	60	15	42	2.20	18.00	4
2	MD-4-02	130	0.4	72	8.10	81	20	30	28	15	5.60	2.00	5
3	MD-4-03	26	0.3	4	4.60	1100	240	40	12	4	<0.20	0.80	340
4	MD-4-04	23	0.6	4	3.60	1600	20	70	4	<1	0.20	4.00	850
5	MD-4-05	40	0.7	20	3.30	1500	20	70	5	7	0.20	4.20	10
6	MD-4-06	24	0.3	12	3.40	1700	30	70	7	16	0.20	4.00	9
7	MD-4-07	26	0.4	20	3.80	1200	10	70	4	10	0.20	3.00	6
8	MD-4-08	14	0.5	12	4.00	1500	10	70	3	10	0.40	2.60	6
9	MD-4-09	25	1.3	74	3.50	1600	10	100	21	24	0.20	3.40	15
10	MD-4-10	17	<0.2	840	3.60	2400	5	70	10	72	2.00	2.20	12
11	MD-4-11	14	<0.2	340	2.90	1200	10	80	2	81	2.40	2.60	11
12	MD-4-12	118	<0.2	620	3.00	1900	5	80	3	23	3.00	3.00	22
13	MD-4-13	12	<0.2	4	3.80	430	1000	30	3	3	<0.20	0.60	85
14	MD-4-14	10	<0.2	2	4.00	430	1050	20	4	<1	<0.20	<0.20	76
15	MD-4-15	12	<0.2	4	3.80	350	950	20	4	2	0.20	<0.20	78
16	MD-4-16	19	<0.2	4	3.70	440	1000	20	2	6	0.20	<0.20	110
17	MD-4-17	<1	<0.2	1	0.90	28	450	20	1	14	0.20	<0.20	27
18	MD-4-18	31	0.4	4	3.60	670	1050	20	2	5	<0.20	<0.20	97
19	MD-4-19	10	0.3	2	3.60	550	1150	20	2	13	<0.20	<0.20	120
20	MD-4-20	32	0.6	1	4.40	660	210	20	10	150	0.20	1.80	385
21	MD-4-21	108	0.6	<1	5.60	3200	550	20	8	14	0.20	1.40	139
22	MD-4-22	29	0.4	<1	4.50	1600	700	20	14	13	0.20	0.60	98
23	MD-4-23	28	0.5	<1	4.20	1000	1450	20	7	5	0.20	0.80	196
24	MD-4-24	44	0.4	1	4.80	1600	850	20	8	17	<0.20	1.80	230
25	MD-4-25	26	0.3	2	4.20	680	850	20	5	16	0.20	0.80	116
26	MD-4-26	23	0.3	1	4.10	1200	1350	10	5	13	<0.20	1.00	263
27	MD-4-27	26	0.3	<1	4.40	1400	990	10	8	5	<0.20	1.20	145
28	MD-4-28	17	0.6	1	4.30	1300	1250	10	17	9	<0.20	1.20	312
29	MD-4-29	7	0.2	2	3.90	430	1600	10	3	6	0.20	0.60	187

MJPP-5(MD-5)

APX. 7–3–8 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
1	MD-5-01	52	1.1	12	3.20	50	15	10	3	8	0.2	0.6	2
2	MD-5-02	33	1.0	16	4.30	485	10	20	11	54	0.4	4.2	22
3	MD-5-03	14	0.6	30	4.90	108	10	20	4	<1	0.6	3.2	2
4	MD-5-04	56	2.0	4	3.70	2500	10	20	22	7	<0.2	20.0	6
5	MD-5-05	26	0.3	16	3.80	58	5	10	6	5	0.4	1.6	1
6	MD-5-06	48	1.7	12	0.60	120	10	20	7	11	<0.2	10.2	2
7	MD-5-07	97	0.5	8	4.90	490	5	10	20	5	<0.2	10.0	2
8	MD-5-08	76	1.8	54	2.15	580	10	10	43	8	<0.2	12.0	1
9	MD-5-09	49	0.3	22	0.90	364	10	10	9	9	<0.2	5.6	2
10	MD-5-10	19	0.2	6	0.90	55	10	10	5	6	<0.2	1.8	<1
11	MD-5-11	52	0.2	26	4.20	1300	10	10	22	5	<0.2	7.0	1
12	MD-5-12	542	0.8	104	3.95	3350	15	10	23	50	0.4	56.0	1
13	MD-5-13	46	1.8	26	6.10	550	10	10	17	16	0.8	20.0	3
14	MD-5-14	57	0.4	30	3.70	1830	20	20	67	12	<0.2	5.8	6
15	MD-5-15	36	<0.2	10	3.20	2160	10	20	30	1	<0.2	2.8	4
16	MD-5-16	32	0.6	36	3.30	1620	20	20	16	12	<0.2	4.0	7
17	MD-5-17	43	0.5	26	3.60	1640	10	30	51	14	<0.2	5.2	9
18	MD-5-18	42	0.5	92	3.70	820	10	50	13	25	<0.2	3.0	9
19	MD-5-19	24	0.2	18	3.85	640	10	60	39	8	<0.2	2.6	5
20	MD-5-20	14	0.2	30	2.35	210	10	20	16	14	<0.2	1.6	5
21	MD-5-21	23	0.3	2	3.40	760	10	20	2	6	<0.2	2.4	2
22	MD-5-22	28	0.2	42	2.30	580	10	50	6	44	<0.2	2.6	8
23	MD-5-23	39	1.0	2	2.10	1400	10	30	5	27	<0.2	1.4	1
24	MD-5-24	32	0.6	2	3.70	1560	10	40	6	2	<0.2	3.2	3
25	MD-5-25	32	0.7	2	3.30	1560	20	40	71	9	<0.2	3.2	3
26	MD-5-26	30	0.7	4	3.40	1750	15	40	31	21	<0.2	2.6	4
27	MD-5-27	27	0.4	2	3.00	1080	10	30	4	20	<0.2	2.2	2
28	MD-5-28	29	0.3	30	3.60	458	10	30	12	27	<0.2	2.4	4
29	MD-5-29	73	1.1	94	4.30	1650	5	50	11	8	0.2	3.0	8
30	MD-5-30	46	1.7	72	4.40	1860	5	80	9	29	0.4	4.4	15

APX. 7–3–9 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
31	MD-5-31	18	0.6	16	4.60	790	10	20	4	15	<0.2	2.4	14
32	MD-5-32	53	2.1	2900	3.50	8300	20	100	12	17	15.5	10.0	26
33	MD-5-33	24	0.6	104	3.10	930	15	20	5	9	0.8	4.2	6
34	MD-5-34	19	0.3	60	3.30	750	<5	40	11	20	0.4	2.6	15
35	MD-5-35	56	0.5	32	3.40	1000	10	30	13	25	<0.2	3.0	12
36	MD-5-36	71	0.6	194	3.50	1180	20	10	43	45	0.8	5.2	15
37	MD-5-37	38	<0.2	364	3.80	1020	<5	10	11	9	2.6	3.6	9
38	MD-5-38	13	<0.2	328	3.60	880	<5	50	12	13	2.0	3.8	18
39	MD-5-39	28	0.5	494	4.50	1300	<5	80	16	46	2.0	5.0	21
40	MD-5-40	15	0.3	304	3.80	740	<5	50	36	3	0.8	3.0	17
41	MD-5-41	21	<0.2	432	3.50	1250	<5	50	40	6	2.0	5.6	32
42	MD-5-42	15	<0.2	410	3.70	1150	<5	40	65	8	2.0	3.6	18
43	MD-5-43	18	0.2	66	3.80	1040	<5	40	21	18	0.2	6.6	18
44	MD-5-44	28	<0.2	310	3.40	920	<5	20	110	5	1.0	9.2	19
45	MD-5-45	39	<0.2	350	4.20	1000	<5	40	69	<1	0.4	20.0	26
46	MD-5-46	58	<0.2	424	5.70	1020	10	80	108	33	0.2	8.6	50
47	MD-5-47	72	0.3	28	3.30	970	10	600	19	10	<0.2	6.8	1850
48	MD-5-48	51	<0.2	22	3.50	970	<5	140	47	3	<0.2	8.4	216
49	MD-5-49	35	0.4	2	3.50	2440	40	50	9	25	<0.2	1.4	186
50	MD-5-50	79	<0.2	74	2.60	350	10	50	81	3	0.2	4.2	12
51	MD-5-51	184	0.3	302	4.80	1060	20	40	173	3	1.6	6.2	23
52	MD-5-52	34	<0.2	80	3.40	760	10	210	77	<1	<0.2	4.4	203
53	MD-5-53	40	0.3	20	3.70	2440	210	50	19	13	<0.2	1.6	193
54	MD-5-54	21	1.5	6	4.70	2920	1600	10	7	4	<0.2	0.8	182
55	MD-5-55	52	0.4	4	4.00	3980	80	20	13	38	<0.2	1.6	65
56	MD-5-56	38	0.4	6	4.00	3260	90	40	7	25	<0.2	1.2	113
57	MD-5-57	43	0.5	4	3.70	3020	60	40	6	35	<0.2	2.0	118
58	MD-5-58	36	0.8	2	4.50	3650	650	10	2	<1	<0.2	1.0	89
59	MD-5-59	45	0.5	2	4.20	3940	600	10	3	9	<0.2	2.8	93
60	MD-5-60	45	0.6	2	4.00	4780	460	10	6	6	<0.2	2.4	93

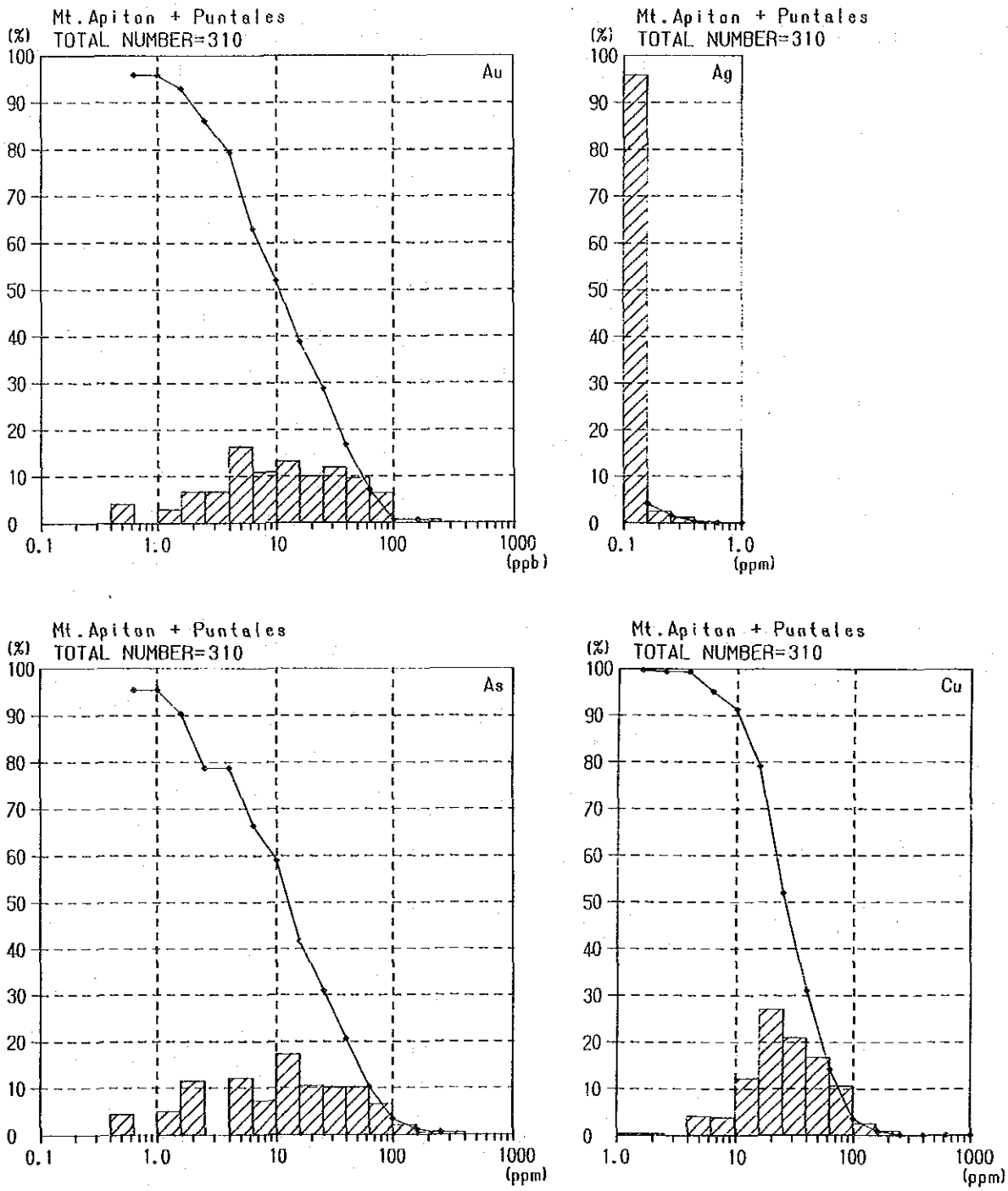
APX. 7–3–10 Results of Chemical Analyses

Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
61	MD-5-61	68	0.9	4	4.40	4270	720	10	2	1	<0.2	1.0	72
62	MD-5-62	61	1.0	4	4.90	4220	770	10	3	<1	<0.2	1.4	82
63	MD-5-63	41	0.9	8	4.10	4300	960	10	3	2	<0.2	1.2	88
64	MD-5-64	31	0.4	4	4.20	2870	990	10	2	<1	<0.2	0.6	106
65	MD-5-65	17	0.5	2	4.70	3330	750	10	3	<1	<0.2	0.4	200
66	MD-5-66	29	0.5	2	4.70	3200	790	10	4	<1	<0.2	0.4	150
67	MD-5-67	38	0.5	2	4.00	3620	640	10	5	<1	<0.2	0.6	130
68	MD-5-68	43	0.5	2	4.20	2770	490	20	5	7	<0.2	1.0	220
69	MD-5-69	69	0.9	6	4.40	3550	520	10	5	36	<0.2	1.6	138
70	MD-5-70	<1	<0.2	4	1.90	60	720	10	2	35	<0.2	<0.2	85
71	MD-5-71	39	<0.2	2	3.40	1770	540	20	2	6	<0.2	2.0	48
72	MD-5-72	15	<0.2	4	3.30	340	1200	10	1	7	<0.2	0.8	146
73	MD-5-73	19	0.3	10	3.60	480	1200	10	3	17	<0.2	0.8	128
74	MD-5-74	19	0.4	4	3.40	650	1200	10	3	76	<0.2	0.4	248
75	MD-5-75	23	0.2	4	3.40	510	1000	10	3	7	<0.2	0.8	109
76	MD-5-76	86	0.6	2	3.90	2950	810	30	6	11	<0.2	2.0	98
77	MD-5-77	31	0.2	2	3.50	940	1050	10	6	5	<0.2	0.6	126
78	MD-5-78	44	0.4	4	3.40	1060	1000	20	3	13	<0.2	1.6	119
79	MD-5-79	31	<0.2	2	3.40	660	780	20	2	7	<0.2	1.2	90
80	MD-5-80	29	0.8	2	3.40	1220	720	10	4	37	<0.2	1.0	132
81	MD-5-81	32	0.5	4	3.50	820	860	20	3	59	<0.2	1.0	125
82	MD-5-82	91	0.4	4	3.30	1750	890	20	5	15	<0.2	0.8	112
83	MD-5-83	83	0.4	2	3.20	1550	960	10	4	1	<0.2	1.4	102
84	MD-5-84	105	0.7	2	4.60	3100	920	10	3	<1	<0.2	1.0	116
85	MD-5-85	31	<0.2	4	3.60	820	790	10	5	2	<0.2	0.8	110
86	MD-5-86	45	0.2	2	3.70	1520	960	10	6	5	<0.2	0.6	135
87	MD-5-87	34	0.2	2	3.70	850	860	10	5	7	<0.2	0.4	132

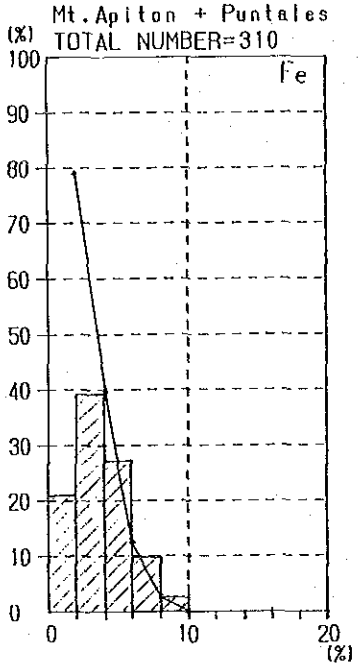
Ore samples

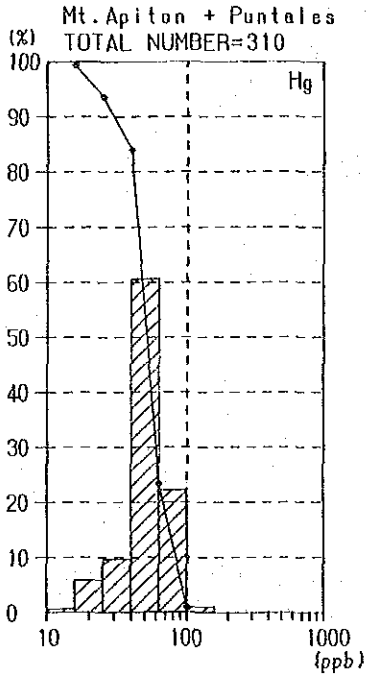
APX. 7–4–1 Results of Chemical Analyses

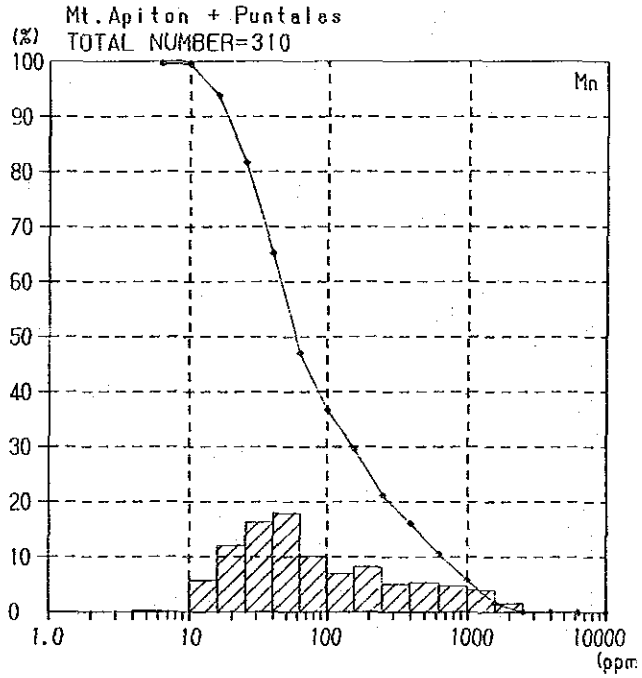
Ser. No.	Sample No.	Au ppb	Ag ppm	As ppm	Fe %	Cu ppm	Mn ppm	Hg ppb	Mo ppm	Pb ppm	Sb ppm	Se ppm	Zn ppm
1	AA-03-NR	<1	<0.2	62	4.70	19	40	10	14	42	11.0	3.8	5
2	AA-05-SR	6	<0.2	4	0.30	9	20	10	1	61	0.8	<0.2	2
3	AB-03-SR	4	0.8	170	9.00	17	160	30	7	80	7.0	11.4	10
4	AC-02-SR	6	<0.2	62	6.70	2	<5	240	2	70	3.0	2.8	3
5	AC-05-SR	77	0.3	120	13.20	28	10	40	<1	63	15.0	32.0	5
6	AD-04-NR	2	<0.2	14	2.90	8	5	20	<1	<1	0.2	1.0	4
7	AD-05-SR	<1	<0.2	24	8.70	2	5	10	1	2	1.2	1.2	3
8	AE-05-NR	<1	<0.2	12	1.60	16	<5	10	2	5	0.2	2.0	2
9	AE-10-SR	16	<0.2	44	5.00	44	<5	20	3	12	2.2	7.8	3
10	AF-02-NR	6	<0.2	40	16.60	74	5	10	5	8	0.2	7.8	25
11	AF-04-NR	1	<0.2	30	18.40	64	10	10	4	6	0.2	5.4	9
12	AF-11-SR	14	<0.2	4	6.00	23	<5	10	1	12	0.2	5.4	3
13	AF-19-SR	4	<0.2	2	9.00	12	130	10	<1	<1	0.2	4.8	4
14	AG-05-NR	<1	<0.2	2	1.50	1	<5	10	2	2	0.2	1.2	1
15	AG-07-R	3	<0.2	22	1.40	<1	5	10	<1	49	1.0	1.2	<1
16	AL-09-R	5	<0.2	52	3.50	2	<5	60	2	3	0.4	2.2	2
17	PB-11-NR	<1	<0.2	2	10.00	325	20	10	3	3	0.2	5.2	9
18	PB-11-SR	<1	<0.2	4	3.60	44	900	10	2	4	0.2	0.4	55
19	PC-10-SR	6	0.3	14	2.50	11	20	10	1	<1	0.2	4.6	3
20	PD-02-SR	<1	<0.2	2	>20.0	59	320	10	1	2	0.2	2.2	87

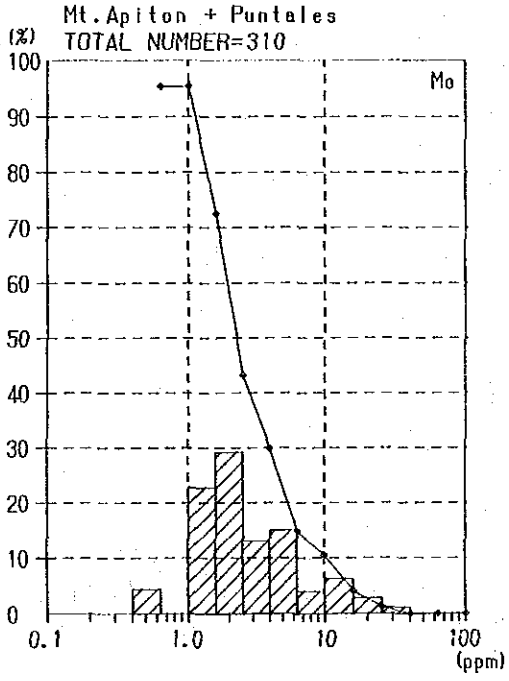


APX. 8–1 Histograms and Cumulative Frequencies, Geochemical Survey, Nipa Area, 1992

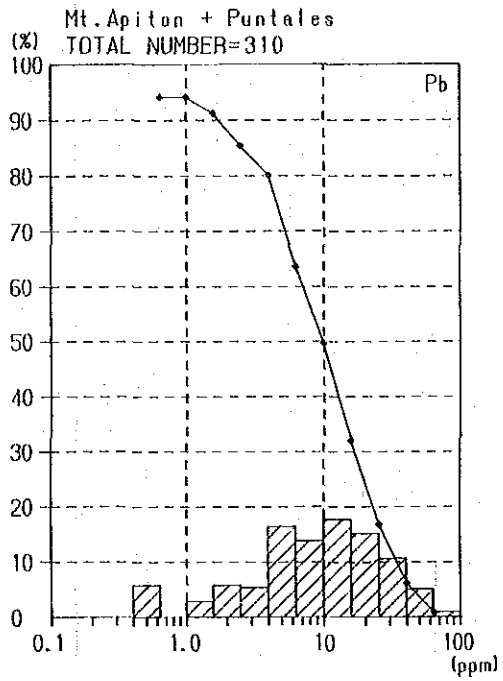


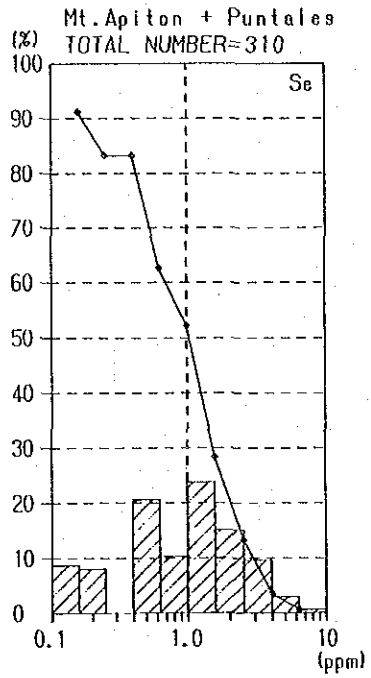


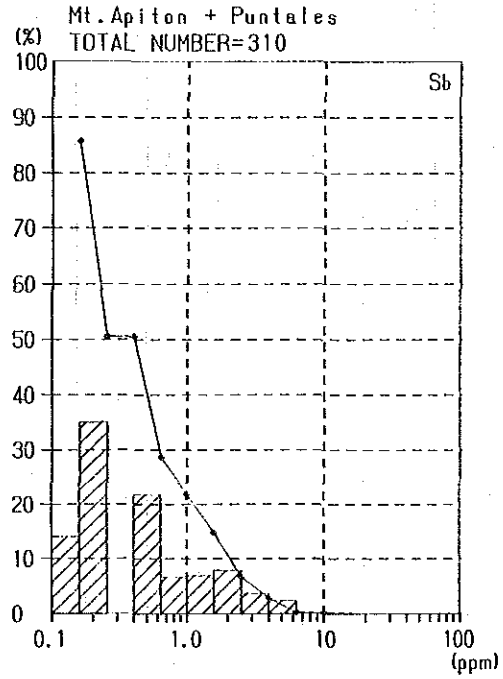


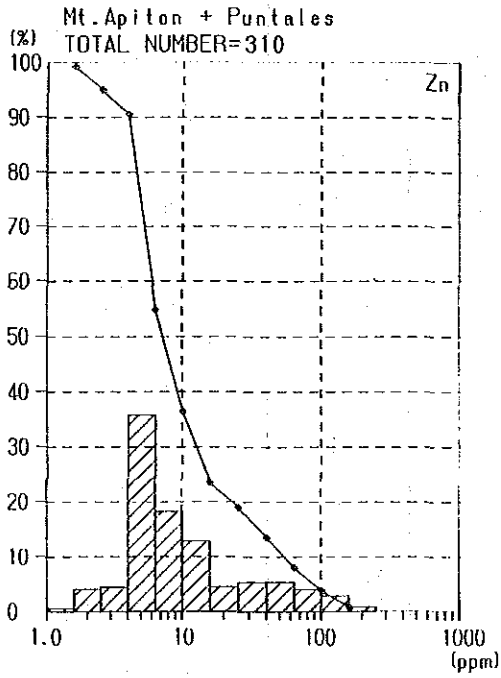


APX. 8–2 Histograms and Cumulative Frequencies, Geochemical Survey, Nipa Area, 1992







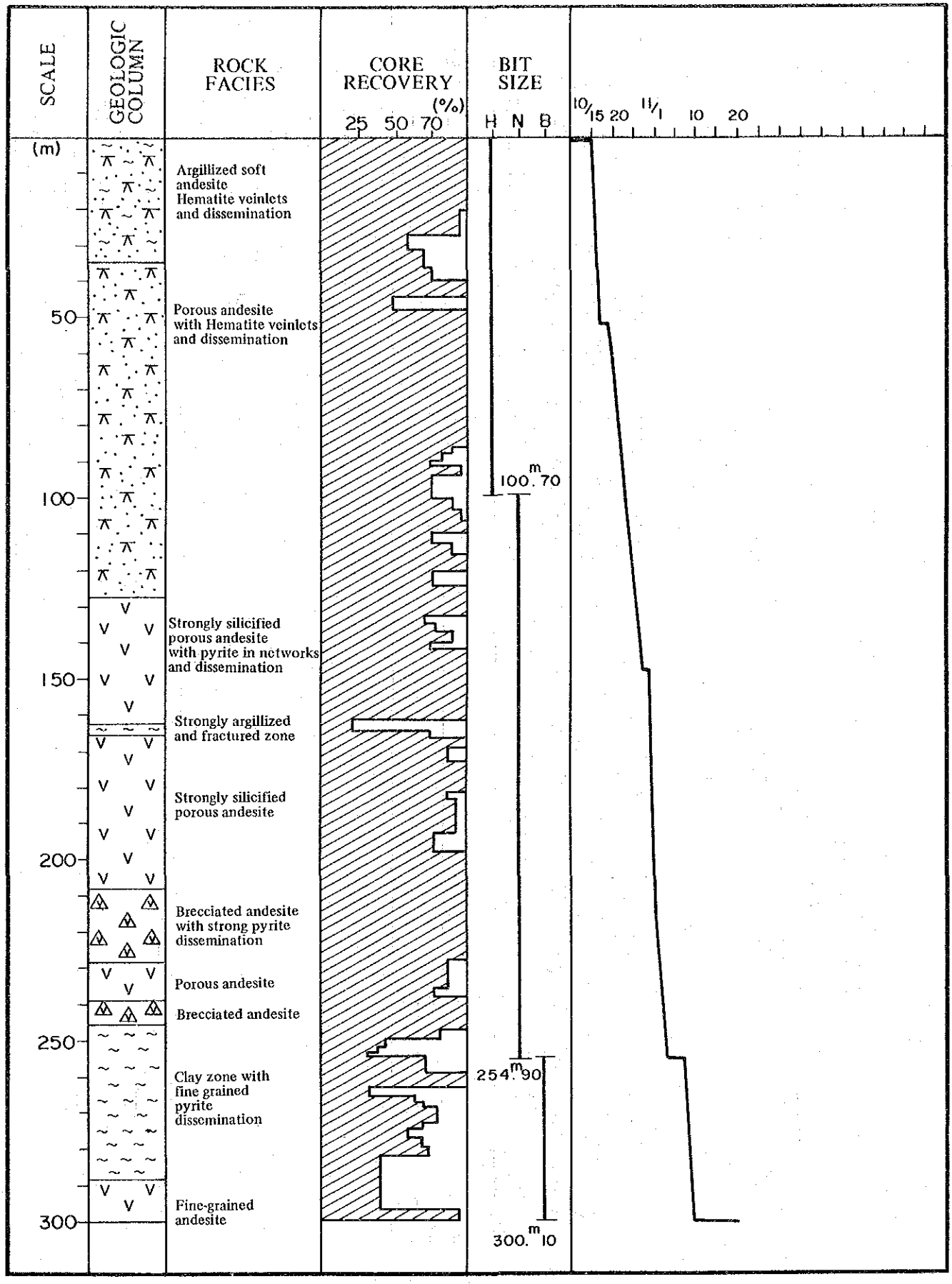


APX. 8–3 Histograms and Cumulative Frequencies, Geochemical Survey, Nipa Area, 1992

APX. 9–1 Drill Progress

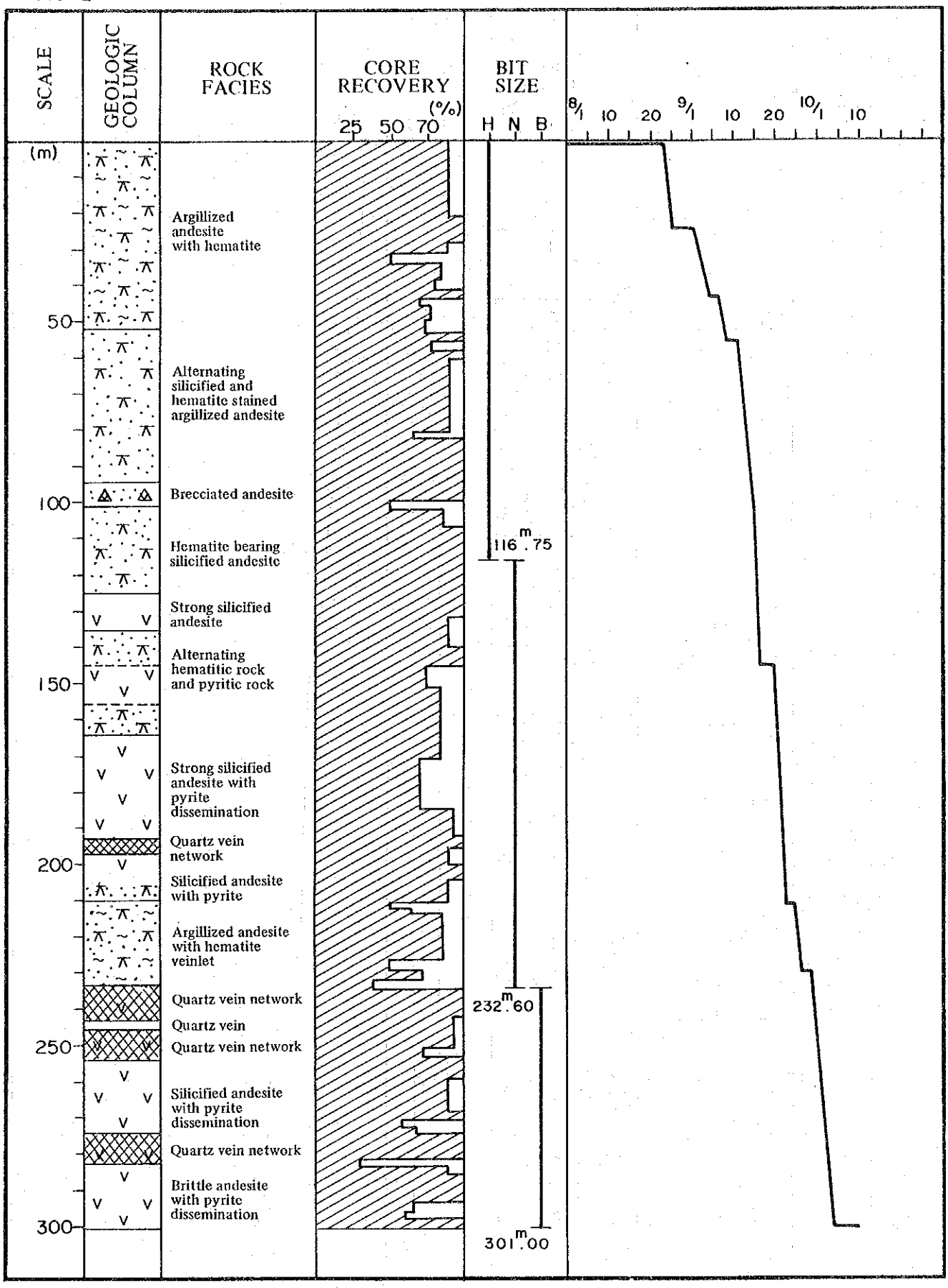
Drill Number	1992 August	1992 September	1992 October	1992 November	1992 December
MJPP-1 (300.1m)			15 ———	——— 3	
MJPP-2 (301.0m)	24 ———	———	——— 4		
MJPP-3 (300.15m)				4 ———	——— 8
MJPP-4 (300.0m)		10 ———	———	——— 21	
MJPP-5 (300.91m)				1 ———	——— 2
MJPP-6 (305.1m)	10 ———	———	———	——— 1	

MJPP–1



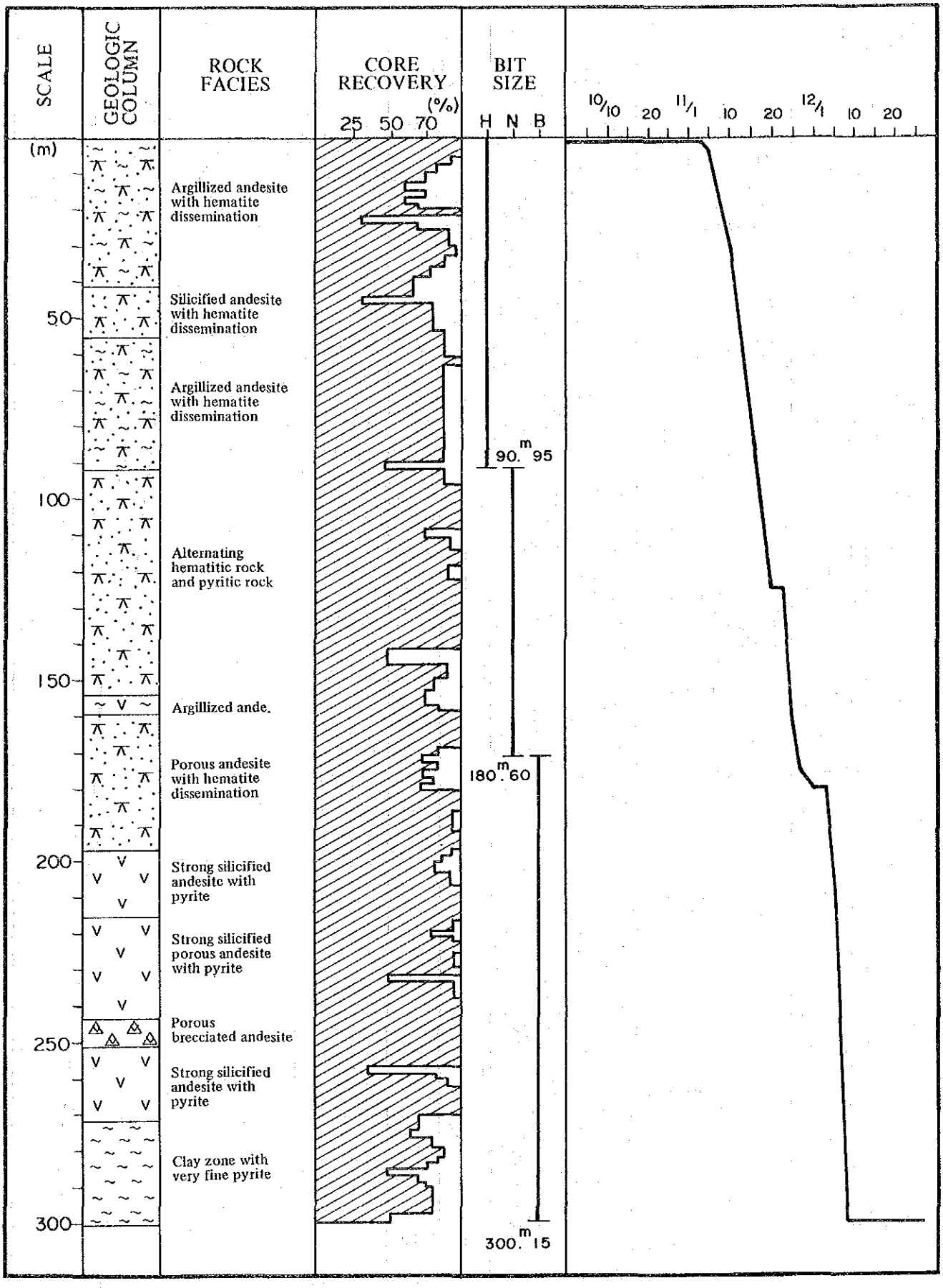
APX. 9–2–1 Drill Progress

MJPP–2

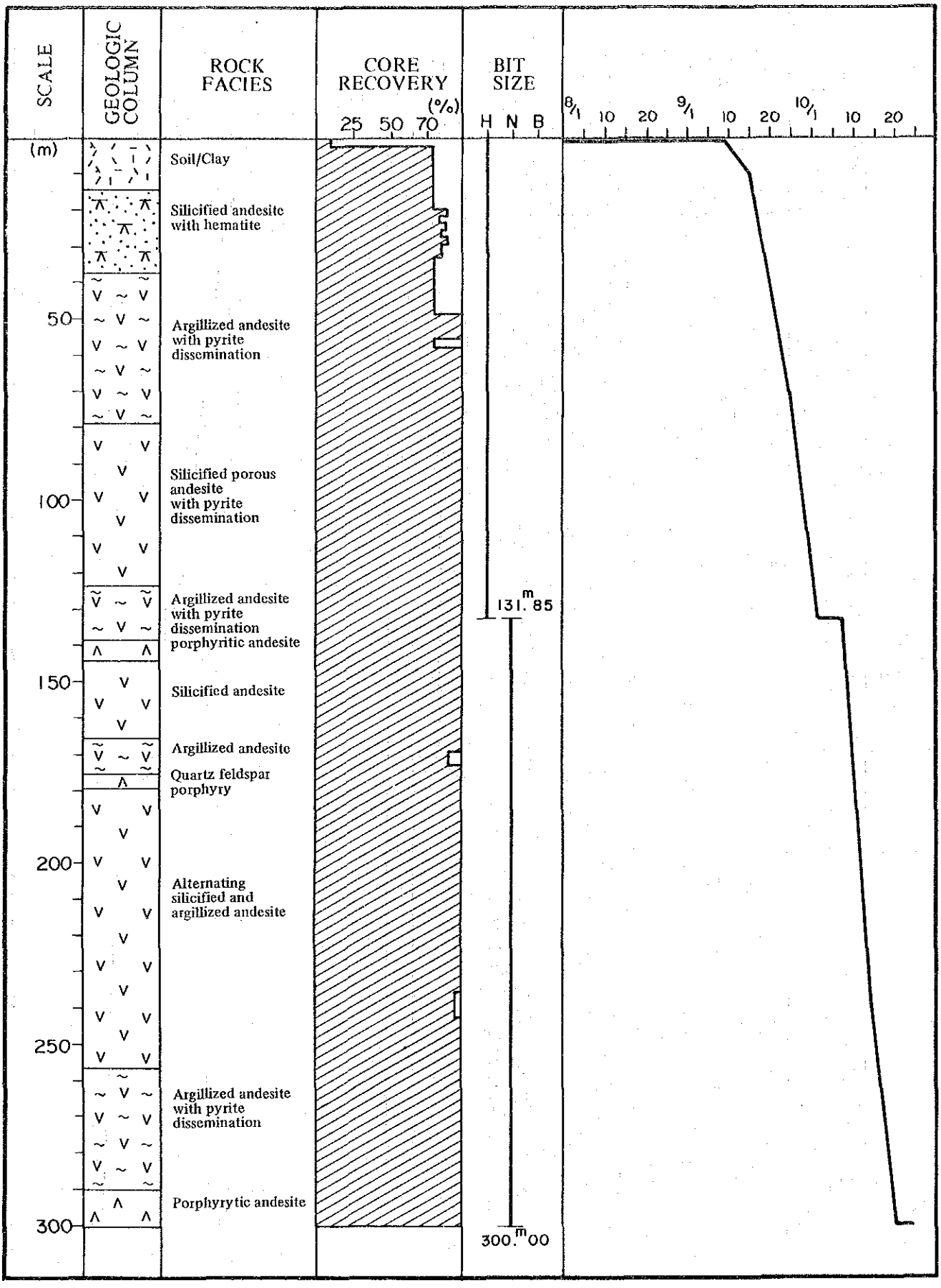


APX. 9–2–2 Drill Progress

MJPP–3

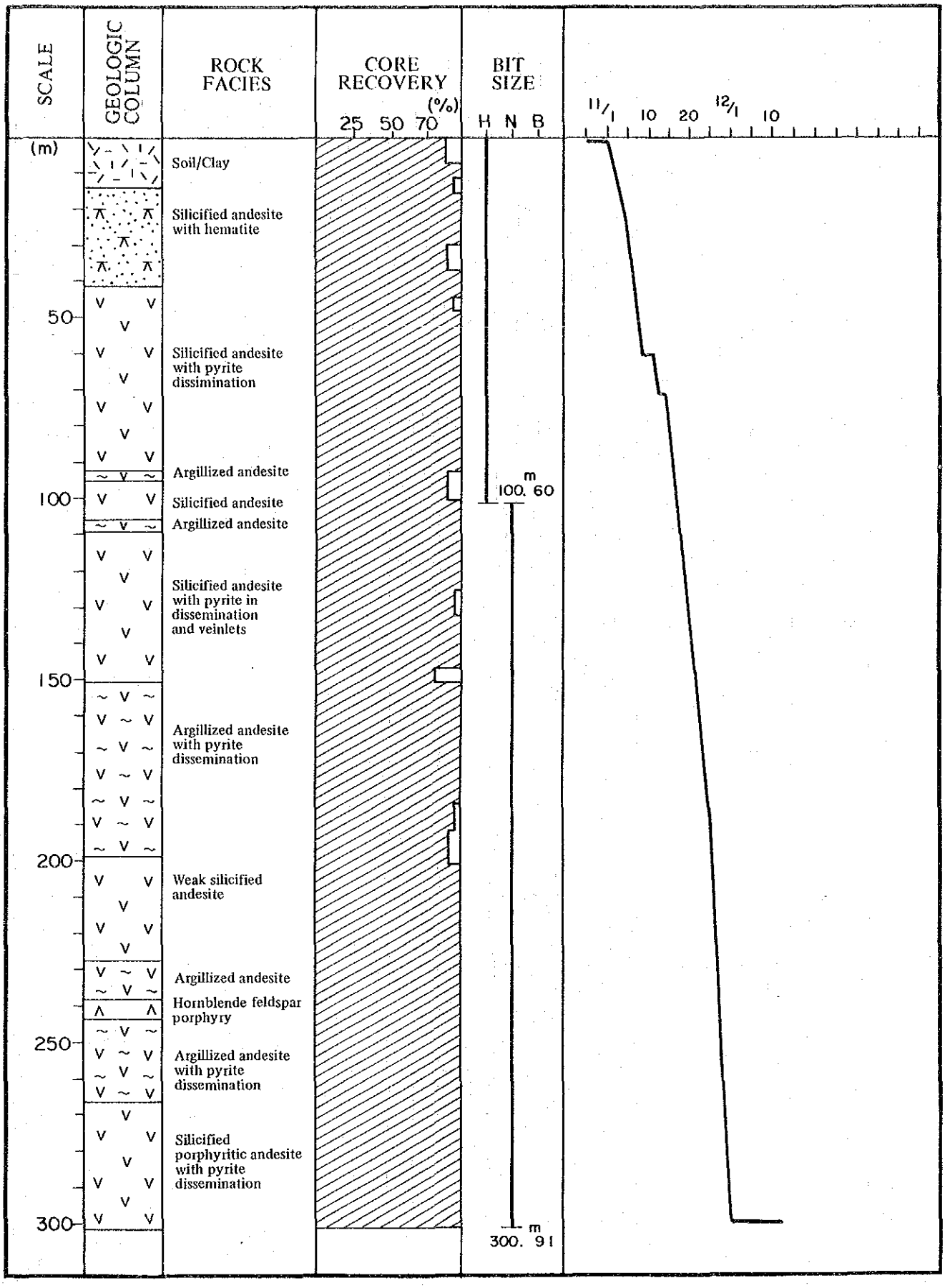


APX. 9–2–3 Drill Progress



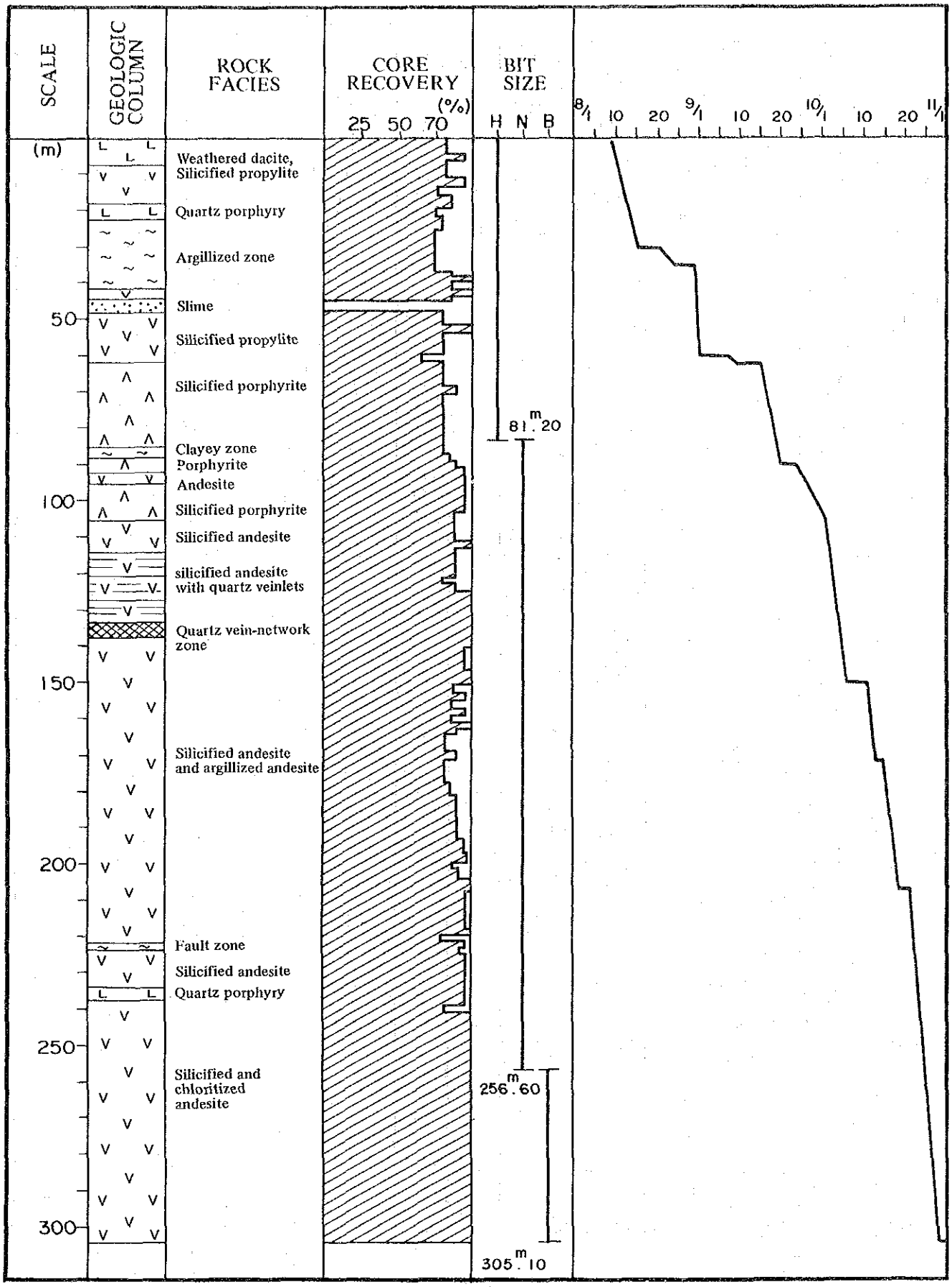
APX. 9–2–4 Drill Progress

MJPP–5



APX. 9–2–5 Drill Progress

MJPP–6



APX. 9–2–6 Drill Progress

APX. 10–1 Drilling Equipments

ARTICLE	MODEL	SPECIFICATION	QUANTITY
Drilling Machine 1 Make: English Drill Co.	Stratadrill	Capacity- 250M HQ, 350M NQ, 450M BQ Inner Diameter of Spindle- 3" or 76 mm. Spindle Speed- Low 30-160, M,GH, 200-1000 RPM Weight- 1,500 kg.	1 unit
Engine Make: Klockner-Humboldt-Deutz(KHD)	F3L912 Diesel	Revolution- 2,200 RPM Rated Power- 40 HP No. of cylinder - 3	1 unit
Drilling Pump 1 Make: Longyear Company	Bean Royal 535 BQ	Type- Triplex Capacity- (Max.)- Continuous - 56 kg./cm² Interwittent - 70 kg./cm²	1 unit
Engine Make: KHD	F2L912 Diesel	Revolution- 2,200 RPM No. of cylinder -2 Rated Power- 27 HP	1 unit
Supply Pump Make: Tone Boring Co.	NAS-3	Type- Duplex Capacity- (Max.)- 130 lit/min. Pressure- (Max.)- 52 kg./cm²	1 unit
Engine Make: Yanmar	F-8 Diesel	Revolution- 2,400 RPM No.of cynlinder -1 Rated Power- 8 HP	1 unit
Drilling Machine 2 Make: Tone Boring Co.	TBC-2	Capacity- HQ 210M, NQ 310M, BQ 490M Inner Dia. of Spindle- 92 mm. Spindle Speed- 165 - 1,000 RPM Weight- 1,900 kg.	1 unit
Engine Make: KHD	F4L912 Diesel	Revolution- 2,200 RPM No. of cylinder - 4 Rated Power- 54 HP	1 unit

APX. 10–2 Drilling Equipments

ARTICLE	MODEL	SPECIFICATION	QUANTITY
Drilling Pump 2 Make: Longyear Company	Bean Royal 535 MQ	Type- Triplex Capacity- 140 lit/min. Pressure Max.- Continuous - 56 kg./cm² Intermittent- 70 kg./cm²	1 unit
Engine Make: Isuzu	C-190 Diesel	Revolution- 3,600 RPM No. of cylinder - 4 Rated Power- 60 HP	1 unit
Supply Pump Make: Longyear Company	Bean Royal 520 MQ	Type- Triplex Capacity- 76 lit/min. Pressure- Continuous - 42 kg./cm² Intermitent - 49 kg./cm²	1 unit
Engine Make: Yanmar	Yanmar F8 Diesel	Revolution- 2,400 RPM No.of cylinder - 1 Rated Power- 8 HP	1 unit
Drilling Machine 3 Make: Longyear Company	Longyear 38	Capacity- HQ 375M, NQ 575M, BQ 725M Inner Dia. of Spindle- 98 mm. Spindle Speed- Low Range 51-325 RPM, High Range, 211 - 1,350 RPM Weight- 1,460 kg.	1 unit
Engine Make: Mitsubishi	4 DR 5 Diesel	Revolution- 3,700 RPM Rated Power- 80 HP	1 unit
Drilling Pump 3 Make: Longtear Company	Bean Royal 535 MQ	Type- Triplex Capacity- (Max.)- 140 lit/min. Pressure- (Max.)- Continuous - 56 kg./cm² Intermittent - 70 kg./cm²	1 unit
Engine Make: KHD	F2L912 Diesel	Revolution- 2,200 RPM No.of cylinder - 2 Related Power- 27 HP	1 unit

APX. 10–3 Drilling Equipments

ARTICLE	MODEL	SPECIFICATION	QUANTITY
Supply Pump 3 Make: Longyear Company	Bean Royal 535 RQ	Type- Triplex Capacity- 140 lit/min. Pressure Max.- Continuous - 56 kg./cm^2 Intermittent- 70 kg./cm^2	1 unit
Engine Make: KHD	F1L912 Diesel	Revolution- 2,200 RPM No.of cylinder - 1 Rated Power- 15 HP	1 unit
Drilling Machine 4 Make: Longyear Company	Longyear 34	Capacity - HQ 225M, NQ 325M, BQ 425M Inner Dia. of spindle- 98mm Spindle speed -Low 20-124 RPM, High, 211-1,350 RPM Weight-1,460 kg	1 unit
Engine Make: KHD	F3L912 Diesel	Revolution- 2,200 RPM No.of cylinder - 3 Rated Power-40 HP	1 unit
Drilling Pump 4 Make: Longyear Company	Bean Royal 535 RQ	Type - Triplex Capacity- 140 lit/min. Pressure Max.-Continuous - 56 kg./cm^2 Intermittent- 70 kg./cm^2	1 unit
Engine Make: KHD	F1L912 Diesel	Revolution- 2,200 RPM No.of cylinder - 1 Rated Power- 15 HP	1 uint
Drilling Pump 4 Make: Tone Boring Co.	NAS -100	Type- Duplex Capacity- (Max.)- 130 lit/min. Pressure- (Max.)- 52 kg./cm^2	1 unit
Engine Make: KHD	F1L912 Diesel	Revolution- 2,200 RPM No.of cylinder - 1 Related Power- 15 HP	1 unit

APX. 10–4 Drilling Equipments

ARTICLE	MODEL	SPECIFICATION	QUANTITY
Wireline Hoist		Attached to each drilling machine- 300m	4 set
Mast		HQ Rod Structral Derrick- 6.0 m Rod Pull-out	1 set
Inclined Mast		HQ Rod Structual Derrick- 6.0 m Rod Pull-out	3 sets
Core Barrel Assembly		HQ Size NQ Size BQ Size	5 pcs. 5 pcs. 5 pcs.
Drill Rod	Wireline Rod	HQ Wireline - 121 pcs. NQ Wireline - 304 pcs. BQ Wireline - 255 pcs.	121 pcs. 304 pcs. 255 pcs.
Drill Casing		HW Casing - 52 pcs. NW Casing - 150 pcs. BW Casing - 120 pcs.	52 pcs. 150 pcs. 120 pcs.
Mixer	Tone Rig-200	Gasoline Engine - Robin Single Piston - 6 HP	1 set
Water Supply Pipes		1 inch. Polyehtylene 1 inch. Galvanized Iron Pipes (Sch. 40)	000 M 000 M

APX. 11 Material Consumption of Drilling

ARTICLE	Unit	MJPP-1	MJPP-2	MJPP-3	MJPP-4	MJPP-5	MJPP-6
Diamond Bit (HQ)	pcs.	2	2	2	4	2	7
(NQ)	pcs.	3	2	3	1	2	10
(BQ)	pcs.	1	1	2	-	-	2
Reamer Shell(HQ)	pcs.	1	1	1	1	1	2
(NQ)	pcs.	1	1	1	1	1	3
(BQ)	pcs.	1	1	1	-	-	2
Metal Crown (HX)	pcs.	1	1	-	1	-	2
(NX)	pcs.	1	1	-	1	-	1
(BX)	pcs.	0	-	-	-	-	-
Core Lifter (HQ)	pcs.	4	3	2	3	3	6
(NQ)	pcs.	4	5	2	3	2	9
(BQ)	pcs.	2	1	3	-	-	3
Core Lifter Case (HQ)	pcs.	2	1	1	1	1	2
(NQ)	pcs.	2	2	1	1	1	3
(BQ)	pcs.	1	1	0	-	-	1
Core Box (HQ)	pcs.	24	22	23	26	21	24
(NQ)	pcs.	16	19	16	23	30	23
Drilling mud (50kg/bag)	bags	20	46	12	3	10	16
Diesoline (Drill & Pump)	ltrs.	1,848	2,247	1,945	2,764	2,805	1,925
Gasoline	ltrs.	62	73	64	-	-	-
Engine Oil	ltrs.	36	55	60	23 1/4	30.45	49
Grease	kg.	10 1/4	22	17 1/4	8	4	17
Cement	bags	-	12	2	-	-	11
Hydraulic Oil	ltrs.	60	60	60	70	40	65

APX. 12 Detailed Geologic Log, MJPP-1

Drillhole No.: MJPP-1
Location: Brgy. Capinang, San Dionisio

HQ size core; initial three (3) meter sample is highly fragmented; argillized rock; generally buff to cream with red brown to brown, hematite impregnations; locally vuggy or porous with manganese stains; near surface section (1 to 2 m) tends to be chalky in texture, powdery when dry and permeable when wet.

3.0 to 5.1 m section: Generally solid section of argillized rock; brown to red brown color with patches or bands of cream; porous texture with numerous vugs and microfractures lined by hematite and manganese (?).

5.1 to 6.3 m section: Hematite-limonite stained portion passes on to generally unoxidized, slightly argillized andesite; gray to bluish gray color; fine grained; microveinlets/veinlets of quartz and pyrite are widespread in this section; pyrite is very fine-grained and is also common as surface coatings of vugs; the hematite/limonite in the upper section is derived from the oxidation of pyrite as seen in some portions.

6.3 to 9.5 m section: Argillized and highly oxidized andesite; variegated color of buff, red and purplish brown; microfractures, veinlets and vugs commonly hematite stained or lined; dendritic projections of hematite veinlets noted locally; pockmarked portions may indicate former pyrite rich clusters left empty after the oxidation and leaching of pyrite; core sample is locally fragmented.

9.5 to 12.4 m section: Continous with previous section but generally more solid and intact; variably argillized with local portions almost totally clayey in texture; red to purplish brown bands and patches contrast sharply with the buff colored groundmass; dendrite-like veinlets of hematite and hematite-lined microfracturesform boxwork patterns in some portions.

12.4 to 15.5 m section: Mainly the same characteristics as previous section with hematite encrustation still very much pronounced; color patterns vary from mottled

to patchy and dendritic-like; traces of corroded sulfides locally observed but is generally rare.

15.5 to 17.9 m section: More of essentially the same material as the previous section; highly argillized, hematite encrusted andesite; highly fragmented especially in the lower portions where the rockmass is almost powdery; purplish brown hematite distinctly visible as swirling bands or dendrites in a buff to cream matrix of argillized material.

17.9 to 21.9 m section: Continous with previous section but is more solid and intact; rock mass appears porous due to the proliferation of pockmarks and vugs in some portions; highly argillized parts tend to be very fragile and fragmented; sections rich in hematite tend to be more competent and intact.

21.9 to 24.9 m section: Essentially continuous with previous section; sponge-like texture of the rockmass prominent in some portions; hematite encrustation still very pronounced especially along veinlets and fractures; red brown color tend to dissipate from these cracks towards the groundmass; short (approx. 10 cm) sections of highly argillized rock also noted.

24.9 to 28.0 m section: Brown to purple brown, argillized andesite; locally fragmented and clayey; short sections were noted to contain irregularly shaped voids partly filled up with crumbly and sandy material; fracture surfaces tend to be lined with a thin film of manganese (?) material.

28.0 to 31.8 m section: Highly fragmented section of argillized and hematite stained andesite; brown to purple brown color, generally fine-grained; sponge-like texture again noted in some portions; rock mass is porous and permeable and tends to be crumbly.

31.8 to 34.6 m section: Continuous with previous section in terms of rock type and character; still very fragmented, almost soil-like in texture; fragments of rock with sponge-like texture are commonly encountered in this section.

34.6 to 37.5 m section: Continous with previous section; still argillized and hematite/limonite stained rock; red brown to purple brown color; powdery to crumbly texture; hematite/limonite stains most prominent along fracture or veinlet surfaces.

37.5 to 40.6 m section: Relatively more intact and solid than the previous section; hematite/limonite stains still very prominent; numerous microfractures lined with hematite are found throughout the section; pockmarked and sponge-like textured portions are notable; groundmass is mainly quartz and clay with practically all mafic minerals leached out; rock mass is still very porous and permeable, tends to be highly absorbent of water.

40.6 to 42.1 m section: Essentially similar to the previous section; argillized and hematite/limonite stained rock; rock mass tends to be fragile and crumbly resulting in a generally fragmented core sample; minute fractures and veinlets in the rock are clearly visible because of the hematite/limonite stains.

42.1 to 45.7 m section: Continous with previous section; rock texture is generally spongy and vuggy; Hematite/limonite stains still very distinct and pervasive; the core sample is relatively intact and solid but fragmented portions also noted; color banding of buff/cream, red and brown has resulted in a colloform-like pattern in the rock.

45.7 to 49.3 m section: Relatively solid core sample; buff to cream, argillized andesite with streaks and bands of red brown to purple brown hematite/limonite; spongy texture still noted but becomes less defined down section; rock mass feels gritty to powdery when dry and smooth when wet; numerous microveinlets and fractures stained by hematite/limonite are locally observed; they tend to vary in both size and orientation.

49.3 to 52.3 m section: Continous with previous section; generally intact and solid core sample; argillized hematite/limonite impregnated rock; spongy to

powdery texture; porous and permeable; brown red, ochre and purple colors form swirling bands and streaks across the rock mass.

52.3 to 54.9 m section: More of the same material as the previous section; variably fragmented core; hematite/limonite impregnations still dominant and pervasive; rock texture range from being spongy to chalk-like.

54.9 to 59.2 m section: Argillized andesite; fine-grained; hematite/limonite impregnations conspicuous as ochre, red and purple stains in a buff colored groundmass; rock mass is locally pitted resulting in its spongy appearance; chalk-like texture also noted in some portions; core sample is generally solid and intact except in the lower section where fragmentation is more intense.

59.2 to 62.2 m section: Essentially continuous with previous section; highly argillized rock stained by hematite/limonite; ochre, red and purple display coloform-like patterns in a generally buff to cream colored groundmass; rock mass retains its porous and permeable character; fragmentation of the core is very slight and tends to follow locally the fracture or shear orientations.

62.2 to 65.1 m section: Continuous with previous section but the color pattern is not distinctive; it is lighter in color and the various colors tend to merge or coallesce; quartz microveinlets locally noted but is generally rare; rock mass appears more massive although locally still pitted and porous.

65.1 to 68.0 m section: Continuous with previous section; generally massive and intact in the upper 2 meters becoming fragmented down section; colloform-like colour pattern noted only in one portion; in the rest of the section, the colors tend to coallesce with one another; rock mass is generally homogenous in texture with only minor and local pitted portions noted.

68.0 to 71.2 m section: Essentially the same materials

in terms of rock type and character as the previous section; variably fragmented although relatively massive and intact; rock texture ranges from being spongy and pitted to dense; hematite/limonite stains of ochre, red and purple still very distinct.

71.2 to 75.2 m section: Essentially a 4 meter long section of almost completely solid and intact core sample; argillized and variably silicified rock impregnated by hematite/limonite; rock mass is dense to spongy and is still commonly porous and permeable; color patterns also very variable ranging from mottled to patchy and colloform-like with distinct bands/streaks of ochre, red and purple; local fractures and veinlets are noted to have the most striking colors.

75.2 to 78.2 m section: Continuous with the previous section; still generally solid and intact core sample; variably argillized and silicified andesite impregnated by hematite/limonite; rock mass appears dense although locally can be spongy and pitted; porous and very permeable portions are highly absorbent of water; color patterns vary from mottled to patchy with islands of buff to white floating in a purplish brown mass.

78.2 to 81.2 m section: Essentially continuous with the previous section; almost solid and intact 3 meter long core sample; variably argillized and silicified, hematite encrustated andesite; argillized portions tend to be chalk-like in texture and water absorbent; they are also more bleached; the more silicified sections tend to be dense and the contrast in colors more distinct and striking; hematite/limonite stains or impregnations are noted to emanate from microfractures and veinlets and tend to permeate the surrounding groundmass.

81.2 to 84.2 m section: Variably argillized and silicified rock; dense to spongy texture, chalk-like where argillization is intense; color variations tend to be most striking in the highly pitted or spongy portions and along intervals with numerous microfractures or veinlets; fragmentation of the core sample is slight and is common in the most argillized parts.

84.2 to 87.2 m section: Continuous with previous section but is more intensely oxidized and hematite/limonite impregnated, especially in the midsection (85.5 to 86.2m) ; color variations of ochre, red, purple and cream are most striking along the most oxidized portions which roughly coincides with the intensely argillized interval; this portion is almost gossanous in character except for the presence of the clay minerals.

87.2 to 91.4 m section: Continuous with the previous section; variably argillized and silicified, almost gossanous material; intensely oxidized and rusted with very local portions almost totally limonitic; the core is variably fragmented with the same silicified portions surviving as intact sections; practically the entire mafic constituent of the rock had been leached out leaving only the more siliceous materials as skeletal networks.

91.4 to 94.4 m section: The highly oxidized, gossanous section continues for about 1.5 meters (91.4m to 93m), then passes on to a less intensely altered material of variably argillized and silicified rock; the lower section is essentially solid and intact which contrast sharply with the fragmented character of the overlying mass; microfractures and veinlets are clearly visible because of the hematite/limonite impregnations; these have given rise to dendritic features in the groundmass.

94.4m to 97.4m section: continous with previous sections; generally argillized and silicified andesite oxidized in varying degrees to a hematite /limonite impregnated mass; a short 17 cm interval (94.7m to 94.87m) of relatively fresh or unoxidized rock is noted along the section; it is mainly silicified andesite with probably most of the mafic minerals altered to pyrite which make up around 10 to 15% of the rock mass; oxidation has corroded the peripheral portions of the pyrite clusters into limonite; much of the original plagioclase has also been altered to clay (kaolinite); the oxidized portions of this section retains the characteristics earlier noted in the previous sections.

97.4m to 100.7 m section: generally solid and intact core sample of hematite encrustated argillized and silicified rock; rock texture ranges from dense to spongy with numerous microfractures and microveinlets in local portions; hematite encrustations appear more prominent in the argillized portions possibly due to the more permeable character of these portions to the fluid that brought in the iron oxides.

100.7 to 103.7m section: shift to NQ size core; continous with porevious section; highly oxidized. argillized and silicified rock; generally solid core up section becoming more fragmented at lower levels; colloform-like colour patterns are again noted wherein bands of purples and ochre form subparallel,swirling streaks in an essentilly cream to buff groundmass; the lowest meter is distincly rusted, almost gossanous.

103.7m to 108.2 section: Fragmentd core becoming more intact and solid down section; very poor core recovery of less than 20% probably due to the inherent incompetence of the rock mass; hematite/limonite impregnation of varibly argillized and silicified andesite still very distinct; the unit contains portion that are brittle and crumbly and also sections that are almost entirely material.

108.2m to 111.45 section: Essentially a continous section of relatively solid and intact core sample; the rock mass is still rusted, with short sections that are almost wholly limonite/hematite which tend to occupy only microfractures and vugs; pockmarked and pitted portions may indicate former pyrite-rich sections that were later oxidized and leached.

111.45 to 114.4m section: Continuous with previous section; variably argillized and silicified rock; oxidized and hematite/limonite impregnated; texture of rock mass varies from spongy to pock marked; argillized portions tend to be more rusted than silicified intervals; ochre, red and purple colours form swirlimg bands or streaks all across a generally buff to cream coloured groundmass.

114.4m to 116.9m section: Oxidized rock passes on to a relatively fresh argillized and silicified andesite and then goes back to a highly oxidized section; the unoxidized portion (114.6m to 115.2m) is generally gray to dark gray in colour and fine grained; much of the feldspars are altered to clay and the mafic minerals into pyrite; texturally the rock mass is made up of interlocking grains of quartz, clay and pyrite; corrosion of the pyrite grains is noted in the slightly oxidized portions; little semblance of surviving pyrite grains are noted in the more highly oxidized sections.

116.9m to 119.1m section: Essentailly fresh, variably argillized and silicified andesite with a 0.5m long interval of oxidized material in the middle of the section; the unoxidized portions are gray to dark gray in colour and characteristically fine grained; clay after feldspars, quartz and pyrite are the most prominent minerals; pyrite is about 10 to 15% of the rock mass; it appears as fine to very fine crystals dispersed throughout the groundmass and as clusters roughly 1 cm in diameter; pockmarks and vugs observed in the highly oxidized portions may be former sites of pyrite clusters prior to oxidaton and leaching.

119.1m to 123.7m section: Essentially continuous with previous section; relatively unoxidized andesite passing on to oxidized materials down section; breccia-like structures with fragments of silicified andesite surrounded by milky quartz are noted in some portions; milky quartz are fissure fillings possibly incorporating fragments of the host rock during intrusion; pyrite is ubiquitous in both the silicified host and the milky quartz; numerous microveinlets almost entirely of pyrite are found throughout the silicified rock; mafic minerals of the silicified host are completely altered to pyrite.

123.7m to 125.7m section:continous with previous section; highly oxidized silicified and argillized andesite; hematite/limonite stained; moderately fragmented especially within the middle part of the section; rock texture commonly pitted; tends to be

fragile and crumbly.

125.7m to 128.7m section: Partly oxidized; silicified andesite; gray to dark gray colour with distinct patches of red, ochre and purple; rock appears dense although pitted or vuggy/vesicular portions are locally present; quartz and pyrite dominate the rock mass; quartz is gray to white or clear, pyrite is extremely fine grained; dark patches observed in the rock may represent areas wherein pyrite inclusions are so fine that they make quartz look gray to dark gray; no other sulphides except pyrite were noted in this section.

128.7m to 132.7m section: continous with previous section; mainly silicified andesite with locally argillized and oxidized portions; rock is gray to light gray with patches of red brown and purple representing hematite impregnations; the andesite is typically fine grained and dense although vecicular portions were also noted; the core sample is generally solid and intact with only slight fragmentation possibly coincident with the fractured or sheard section of the rock; again, the dark colour of the rock may be due to the very fine pyrite inclusions in the groundmass; on the average, pyrite maybe about 15 to 20 % of the rock mass.

132.7m to 136.7m section: Generally continous with previous section in terms of rock type and character; gray, fine grained, silicified andesite with local oxidized portions; red and purple hematite stains and impregnations still very prominent; milky quartz veinlets/ microveinlets; becoming distinctive; these tend to vary both in size and orientation; pyrite is around 10% and mainly found as disseminations or interstitial fillings in the groundmass; pyrite dominated veinlets/ microveinlets rarely noted.

140.0m to 142.9m section: Essentially gray to light gray, silicified andesite; locally vesicular or porphyritic in texture; hematite stains inconspicous; veinlets of milky quartz are prominent varying both in size 1 to 7mm wide, and in orientation; pyrite content is anywhere between 5 to 10% and the occurrence is patchy, fragmentation of the core is slight and tends to

follow local fractures or veinlets

142.9m to 146.25m section: Continous with previous section but is more solid and intact; oxidized portions show distinct red and purple hematite stains; porphyritic texture locally prominent with phenocrysts of plagioclase and milky quartz in a matrix of fine grained pyrite and quartz; milky quartz veinlets permeate the entire section; they tend to pinch and swell along their trend and sometimes just flood the groundmass incorporating sections or fragments of the host rock; pyrite is found mainly in the groundmass and as clusters contiguous to quartz veinlets.

146.25m to 148.75m section: Gray coloured, silicified andesite; locally oxidized and iron oxide stained (hematite/limonite); texture is generally fine grained, granular with only local portions showing porphyritic character; milky quartz veinlets still very pervasive and prominent; pyrite occurrence is patchy and irregular and the content is around 5 to 10%.

148.75m to 151.8m section: Silicified andesite; fine grained, gray to dark gray colour; milky quartz vein/veinlets are very prominent in this section; a five centimeter wide quartz vein was noted at level 150.8m forming a 45^0 angle with respect to the core axis; the vein includes subparallel dark bands that are conspicuously pyrite rich; it coloured, irregular bands at about 151.4m to 151.8m were also noted; epidote is distinctive in these bands; milky quartz veinlets found adjacent to these and milky quartz fragments within the bands would indicate that the latter features arose from the intrusion of the milky quartz; pyrite occurrence is patchy and irregular; it is around 5 to 10% of the rock mass.

151.8m to 154.8m section: silicified andesite, lower section almost wholly vein material; milky quartz appears to permeate the silicified rock, often incorporating irregular fragments of the host thus giving rise to a breccia-like structure; pyrite is ubiquitous but is generally less than 10% and found

mainly in the silicified groundmass.

154.8m to 157.8m section: Continuous with previous section; milky quartz vein/veinlets still very prominent and pervasive; boundaries or contacts between veinlets and country rock are poorly defined, often coalescing; milky quartz appears to just flood the groundmass resulting in its subsequent silification; breccia-like features still noted locally; pyrite is around 5%, mainly disseminations of fine crystals in the groundmass; core sample is relatively solid and intact.

157.8m to 160.17m section: Essentially the same material in terms of rock type and texture as the previous section; silicified andesite cut by numerous milky quartz veins/veinlets; breccia-like structure very prominent along interval 159.25 to 159.60m; rare subangular to angular fragments of silicified rock are immersed in an essentially milky quartz matrix; in other portions the milky quartz and host rock contacts appear to merge; pyrite is limited to the silicified rock and is generally less than 5% average.

160.17m to 162.88m section: Continuous with previous section; gray to light gray silicified andesite; veinlets of milky quartz still abundant, tend to permeate the silicified host rock; a 10cm wide vein of essentially quartz materila was noted at 160.25m, within the vein subparallel veinlets of pyrite and gray quartz were observed; the vein material itself is vuggy with most of the vugs lined by drusy quartz; pyrite is found throughout the section and is around 7% average.

162.88m to 165.2m section: Highly fragmented section of variably argillized and silicified andesite; oxidized with some hematite stains; rock texture appears chalk-like and powdery; silicified portions tend be brittle and dense; pyrite was not noted in this section; core recovery is only around 40% probably due to the poor quality of the rock unit.

165.2m to 168.1m section: From the previous section, the rock posses on to the more typical silicified andesite; gray to light gray colour, fine-grained; milky

quartz veins/veinlets again prominent especially in the upper section becoming less distinct at the lower level; milky quartz appears to impregnate the whole rock mass often incorporating discreet fragments of the host within essentially vein material; pyrite is locally abundant particularly in the silicified groundmass and more rarely vug and fracture filling; it is around 10% average.

168.1m to 171.65m section; continous w/ previous section; locally fragmented portions where slight argillization is noted; milky quarz veins/veinlets still prevalent; the section 170.5m downwards is almost totally vein materials; bleaching of silicified portions has resulted in a generally light gray to buff colour of the unit; epidote is locally abundant; dark gray to brown bands or islands w/ in the rock mass are dominantly pyrite rich portion; pyrite lined microveinlets or fractures forming dendritic patterns were also observed locally; pyrite content is anywhere between 5 to 10% for the whole section.

171.65m to 174.5 m section; silicified andesite; gray colour, fine grained, milky quartz veinlets still prominent but not as pervasive as in the previous section; numerous vugs are noted especially along the veinlet trends; these are sometimes pyrite impregnated or rusted (oxidized pyrite); core sample is generally solid and intact except for a 40cm interval in the upper section that is moderately fractured and fragmented; average pyrite content for the whole section is less than 5%

174.5m to 176.0m section: continous w/ previous section; silicified andesite; gray colour; fine grained; milky quartz veinlets relatively rare; pyrite impregnations mainly along veinlet and fracture surfaces; fine disseminations in the groundmass after mafic minerals are also noted; pyrite content is around 15% ; core sample is exceptionally solid and intact
176.0m to 179.0m section: silicified andesite; gray colour; fine grained' intergranular texture; pyrite impregnated' w/ practically all mafic constituents replaced by finely crystalline pyrite; milky quartz

veinlets occur irregularly throughout the section; microveinlets form swarms and networks in the silicified mass; microbreccia structures also noted; narrow fractures and vugs follow the trend of the veinlets and are generally lined by fine crystals of pyrite
179.0m to 182.0m section: continous w/ previous section but generally more fragmented core sample; silicified, fine grained andesite; quartz veinlets still prominent but indistinct; they cross cut one onother forming mesh like networks in some sections; pyrite is ubiquitous as fine disseminations and clusters in the rock mass; average content is about 15%

182.1m to 186.0m section; silicified andesite; oxidized in some portions resulting in red brown to purple hematite stains; milky quartz veins/ veinlets locally prominent; a 10cm wide veinlet dominated section along level 182.3m shows oxidized rock criss crossed by swarms of quartz microveinlets; pyrite is still abundant, averaging around 15 to 20% across the whole section; fragmentation of the rock mass is particularly intense along the more oxidized portions

186.0m to 189.0m section: Oxidized rock continues to the upper half meter part of the section and then abruptly passes on to a fresher, relatively unoxidized andesite, it is silicified to varying degrees and is texturally fine grained; slight to moderate argillization noted predominantly at the lower section where bleaching of the rock is evident; pyrite is still about 15% of the rock mass occurring primarily as mafic mineral replacements; disseminations of pyrite within the milky quartz veinlet was also observed although this is a rather uncommon feature.

189.0m to 192.0m section: Variably silicified and argillized andesite; gray to light gray colour, fine-grained, almost homogeneous texture through out the section; milky quartz impregnation is pervasive, appearing as irregularly shaped veins, bands and patches in a silicified mass; vugs and voids in the milky quartz veinlets are commonly filled with sulphur, pyrite is abundant in the silicified rock, averaging about 10 to 15%; a short oxidized interval was noted at level 192.5m

192.0m to 195.0 m section: Silicified and argillized andesite; oxidized at the lower 1.5 m portion; milky quartz veinlets still distinct; rock mass appears highly pitted almost sponge like in some portions; it is generally porous and permeable; oxidized portion characteristically hematite stained with prominent red to purple bands or streaks contrasting sharply with the buff to cream ground mass; pyrite content is still around 15%; fragmentation of the core sample is moderate.

195.0 m to 198.0 m section: Relatively unoxidized rock with very minor oxidized portions; variably silicified and argillized in portion; porphyritic texture noted, the interval 195.2 m to 195.6m shows mainly light gray, fine grained, bleached rock; the groundmass is dominantly quartz and clay (probably after feldspar) with around 10% pyrite occurring as very fine disseminations; pyrite content of the rest of the section is 15 to 20%; highly pitted or vesicular portions are typically argillized, numerous microveinlets of quartz are noted with these portions; moderate to intense fragmentation characterize the core sample.

198.0m to 201.0 m section: Silicified andesite; fine grained to porphyritic texture; locally oxidized and fragmented; milky quartz veins/ veinlets are prominent; the structures or patterns shown by the quartz veinlets is suggestive of its intrusion into a rather permeable mass where it simply permeated the whole rock, silicifying in it and taking in fragments within itself; that space is available is suggested by the numerous vugs and cavities lined with drusy quartz or pyrite found in veins/veinlets; the ill defined contacts or boundaries between the vienlets and the intruded rock also supports the contentionn that the vein material easily penetrated the intergranular spaces and pores of the rock mass, flooding it with silica.

201.0m to 205.2m section: Essentially continous with the previous section; displaying much of the same features and character of the overlying sequence;

porphyritic texture is still distinctive; milky quartz veinlets equally prominent especially in the upper portions; they tend to form irregular bands and patches inthe rock commonly containing angular fragments of host and giving rise to a breccia-like structure; vugs within the vienlets are sometimes filled up with sulphur; pyrite is mainly found in the groundmass and is estimated to be about 17% core sample is generally solid and intact with minimal fragmentation.

205.2m to 208.3m section: Silicified andesite with local argillized portions; generally fine grained to porphyritic in texture; the interval 205.4 to 205.6m shows fish-scale features with wavy dark streaks contrasting sharply with the white groundmass; veinlets of milky quartz still evident with the lowest 60cm portion of the section almost totally quartz vein material; pyrite is patchy in distribution, limited mainly to the groundmass and as veinlets/vugs filling; it is on the average around 10% of the rock mass; the core sample is relatively fragmented down section.

208.3m to 211.2m section: Continuous with the previous section; partially oxidized and hematite stained portions locally observed; milky quartz veins/veinlets still pervasive though irregular in distribution; microbreccia structure in some of the veinlets also observed; vugs and voids following the trend of the veinlets and with in the veinlets themselves are commonly filled up with sulphur or otherwise lined by ultrafine crystals of pyrite content is about 10% in the groundmass.

211.2m to 211.2m section: Generally solid and intact core sample except for the interval 211.9m to 212.4m which is highly fragmented; variably silicified andesite impregnated in portions by milky quartz; veinlets are still irregular in shape and variable in orientation; the portion along 212.65 m to 213.25m showsthe rock mass and quartz vein both highly pitted and sponge like in texture; pyrite dominated microveinlets appear as dark lines cutting across on essentially cream to buff quartz groundmass; sulphur stains and vug fillings are common in this portion; pyrite distribution is rather irregular

but on the average is less than 10%; the core sample is relatively solid and intact all along this section.

215.4m to 218.4m section: Continuous with the overlying sequence; highly silicified andesite with very pervasive milky quartz impregnations; the lower 2m portion is particularly striking because of its aimost continuous section of milky quartz dominated rock mass; the prominence of pyrite microveinlets cutting across both the quartz veins and the silicified host rock was also noted; they appear as irregular and wavy dark lines all thoughout the sction; on the average, pyrite is about 15-20%; the core sample is exceptionally solid and intact.

218.4 to 221.76 m section: Milky quartz dominated rock mass continues to this section; slight oxidation with hematite stains was noted very locally; breccia-like features showing angular fragments of the intruded rock surrounded by or incorporated into the quartz vein material were again encountered ; in other portions, the milky quartz appear to permeate the silicified rock mass making it difficult to discern the contact between the vein and the intruded host; vugs and fissures within the vein material and the silicified rock are sometimes filled in by pyrite; its average content is around 12% for the entire length of the section.

221.76m to 224.4m section: Essentially contiuous with previous section in terms of both lithology and geologic character; pitted or sponge-like texture locally noted; pattern encountered in the more highly quartz impregnated portions are generally irregularly patchy to concrete-like, with multi-shaped fragments of both silicified rock and vein material mixed together in a siliceous matrix; pyrite occurs both in the groundmass and in the included fragments; minor microveinlets of pyrite also locally observed.

224.7 m to 227.4m section: Silicified, quartz impregnated unit continues on this section; the pattern shown by the milky quartz intruded portions is a hodgepodge of variably shaped fragments of silicified rock and pyrite rich clusters and vein material in

matrix of milky quartz; various shades of grey, cream and yellow make up the variegated colour of this portion; numerous vugs and interfragment voids were noted to be lined by pyrite crystals or filled in by sulphur; pyrite, though pervasive, is less than 10% average.

227.4m to 230.4m section: Continuous with previous section; fine-grained to porphyritic, silicified andesite intruded in portions by milky quartz veins/ veinlets; breccia-like features common in the veins / veinlets; sulphur deposition within vugs and voids of the vein material still distinctive and conspicuous; quartz veinlets apppear to be less numerous down section; pitted and porous portions sporadically noted along short intervals; pyrite still present at around 10% of the rock mass; the core recovery and quality is generally good with minimal fragmentation noted.

230.4m to 233.4m section: Variably silicified andesite; gray to light gray colour; generally fine grained; pitted or vesicular portions locally present; these tend to be porous and highly permeable; quartz veinlets are sparse in the upper section but becomes very prominent in the last half meter portion; sulphur deposition notable in the milky quartz vugs and micro fissures; pyrite still occurs as replacement of the mafic minerals in the silicified host and as minor fillings of microfissures in the veinlets; it averages around 15% for the entire section.

233.4m to 237.2m section: Essentially continous with the previous section; variably silicified andesite; fine grained to porphyritic texture, locally pitted or vesicular; microveinlets/veinlets of milky quartz also present but not as pervasive as in the two sections prior to the previous one; vugs and voids form traces roughly following the trend of the veinlets; these are locally lined by fine crystals of pyrite; fine disseminations of pyrite are also common especially in portions contiguous to quartz veinlets; the average content is 10 to 12 %; the core sample is slightly fragmented.

237.2m to 240.95m section: Variably silicified and argillized andesite; gray to light gray colour with patches of cream along milky quartz intruded portions; argillized portions tend to be crumbly, powder-like in texture, porous and highly water absorbent; fragmentation of the core is relatively intense in these portions; milky quartz displays essentially similar intrusive features as in previous section with the quartz forming anastomozing veinlets or permeating the host rock; pyrite is ubiquitous in the silicified rock and comprises about 10-15% of the rock mass.

240.95m to 244.65 m section: A continuing sequence from the previous section; variably silicified and argillized andesite, although the latter is considerably subdued compared to the preceeding section; gray to light gray colour; generally fine grained; pitted and vesicular locally; milky quartz intrusions still pronounced although irregularly distributed; veinlets tend to pinch and swell along their trend and oftentimes simply coalesce with the surrounding silicified mass; distinct sulphur stains are noted along micro-fissures and vugs in the veinlets; pyrite constitutes roughly 15-17% of the rock mass, occurring primarily as replacement of original mafic constituents and veinlet material.

244.65 to 247.75m section: variably silicified andesite; generally fine-grained, locally highly pitted or vesicular, almost sponge-like making it porous and permeable; quartz veinlets form irregular networks in the intruded mass, locally forming breccia-like features; boundaries or contacts between the rock and veinlets appear to fuse as the vein material simply permeate the surrounding mass; pyrite content is about 12% in this section, again appearing mainly as disseminations or clusters of fine crystals in the silicified rock.

247.75 to 250.4m section: continuous with previous section in terms of rock type and character; veinlets of milky quartz still prominent although becoming less distinct down section; rock mass silicified, fine grained andesite; sulphur impregnations in some of the

vugs and fissures in the veinlets are locally noted; breccia-like structures again observed along vein projections; core sample is generally solid in the upper portion becoming more fragmented down section; pyrite is still 15% of the rock mass; microveinlets/stringers of pyrite are also noted in the silicified rock.

250.4 to 253.9m section: The upper meter portion is characteristically fragmented, silicified rock passing on to an intensely fragmented portion becoming clayey at the deepest end; while the top portion is clearly silicified andesite, the bottom part is mainly hematite stained, clay materials, probably representing an oxidized and argillized rock mass; core recovery is generally poor especially in the last 1.5 m portion; pyrite content of the silicified portion is around 10%-12%; in the argillized but unoxidized middle portion of the section, it is about 7-10% average.

253.9 to 257.5m section: Essentially a continuous section of highly argillized material, almost totally clayey; buff to dirty cream colour; powdery and chalk-like when dry and plastic when wet; fine disseminations of pyrite averaging around 5% are noted within the clay matrix; oxidation in some portions has resulted in the red to brown discolouration; core recovery is only moderately good because of the incompetent character of the rock mass.

257.5 to 260.3m section: Continuous with previous section; argillized rock, almost totally clay material.

260.3 to 267.2m section: Continuous with previous section; argillized zone; pyrite bearing around 5 to 7%; slightly oxidized; core recovery generally poor.

267.2 m to 271.3m section: Continuous with previous section; highly argillized rock mass; buff to cream colour; powdery and crumbly when dry and plastic and moldable when wet; fine pyrite crystals are disseminated throughout the section and constitute around 5% of the material; core recovery is still poor in this section.

271.3m to 277.2m section: Continous with previous section; highly argillized rock mass; pyrite bearing at about 7%; core recovery is poor at around 60% to 70%.

277.2m to 283.0m section: Highly argillized rock mass continues to this section; the rock mass is mainly clay plus remnant quartz and pyrite with the latter occurring as very fine disseminated crystals in the ground mass; it is around 10% average; core recovery is about 60% for the whole section.

283.0m to 287.5m Continuous with previous section; highly argillized, almost totallly clayey material; buff to cream colour; powdery and chalk-like texture when dry and plastic when wet; pyrite disseminations still at around 3 to 5% of rock mass; core recovery is about 65%.

287.5m to 292.0m section: Argillized zone continues to this section but intensity of the alteration appers to lessen down hole; from almost totally clayey material up section to fragmented argillized rock mass at depth; fragments of chloritized and pyritized andesite (?) noted at the bottom portion; overall pyrite content is < than 5%; core recovery still poor at around 50 to 60%.

292.0m to 295.5 m section: Fragmented, argillized rock of previous section passes on to a generally intact; relatively unargillized material; dark gray to greenish-black in colour, fine grained, with numerous veinlets and microveinlets of milky quartz and anhydrite; chlorite alteration is quite distinct; magnetite is pervasive in this section possibly making up to 15 to 20% of the rock mass; the middle portion of the section is highly fragmented and core recovery is generally poor; pyrite content is around 5 to 10% of rock mass.

295.5m to 300.1m section: Essentially continuous with previous section; dark gray to greenish black, fine grained andesite; anhydrite veinlets still prominent but are of variable trends and sizes; magnetite remains pervasive constituting anywhere from 15 to 20% of the rock mass; pyrite remains distinct at around 5% of the rock mass; usually occurring as fine disseminations in the rock mass; core recovery is about 75 to 80%.

APX. 13 Detailed Geologic Log, MJPP-2

DRILLHOLE: MJPP-2
LOCATION: Bgy. Capinang, San Dionisio
(UPAO Drill Site)

0 - 3.60m section: Hematite-Limonite stained section. Reddish brown to brown color, with hematite coatings showing purplish brown. Highly oxidized pyrite occurs as microveinlets and impregnations. Pyrite occur as very fine grains commonly occuring as coatings. High degree of oxidation resulted in the deep brown to reddish brown color.

3.60 - 4.90m section: Light gray with buff white horizons. Generally weathered and leached. Generally argillized with some portions appearing like gougy material.

5.15 - 6.20m section: Patchy colored zone, brown-white purple brown. Presence of quartz material within a moderately oxidized zone giving an almost breccia like structute.

6.20 - 8.61m section: Highly oxidized section. Reddish brown to purple brown with some buff white patches. Presence of hematite is pervasive occuring as coating, microveinlets, veinlets and along vugs and fracture fillings. Original mafic minerals no longer visible and totally altered. Pyrite occurs as impregnation, veinlets and surface coatings.

8.61 - 10.70m section: Patchy colored section, reddish brown to brown with buff white patches. Hematite is pervasive throughout the section with moderate amount of limonite stains. Multidirectional pyrite microveinlets criss-cross the whole section.

10.70 - 11.50m section: Color banded section, pyrite veinlets and microveinlets in parallel directions giving a banded structures. Pyrite generally oxidized giving purple brown to black bands. Generally dense core.

13.55 - 14.60m section: Reddish brown to purplish brown highly oxidized zone, generally porous. Hematite is pervasive occuring as surface coatings, fracture

fillings and present along vugs and open spaces. Locally pitted section could also be observed.

14.60 - 18.30m section: Reddish brown to brown with purple brown patches. Highly oxidized zones could be observed with some sections exhibiting color banded structures. Vuggy structures could also be observed. Pyrite occurs as fine disseminations and microveinlets; oxidized pyrite gives a black color tint.

18.30 - 20.68m section: Moderate-highly crushed core, reddish brown to purple brown. Generally pitted giving a porous structure. Hematite stains is pervasive with some local limonite stains. Oxidized pyrite occurs as disseminations and microveinlets.

20.68 -23.70m section: Generally continuous with the previous section with some portion more competent but becoming highly crushed going down the section. Hematite and limonite stains highly notable with some portions exhibiting porous structures.

23.70 - 27.80m section: Moderately argillized zone. Moderately to highly crushed cores. Patchy colored zones could be observed on the more competent cores. The 26.40 to 27.80m section is highly crushed, strongly argillized with some stains of limonite and hematite. Color varies from buff white to redddish brown to light purple brown.

27.80 - 30.60m section: Reddish brown to brown with patches of purple brown and buff-white color. More competent cores exhibiting sponge-like texture locally. Presence of quartz veinlet noted at 28.15m. Buff white quartz around 0.20cm with some oxidized pyrite grains along edges of the veinlet.

30.60 - 33.80m section: Reddish brown to purple brown, moderately fragmented with hematite and limonite stains. Limonite stains are highly visible at 31.70m level. Silicification is higher than the previous section. Pyrite occurs as minute veinlets and disseminations.

33.80 - 35.90m section: Generally continuous with the

previous section, but silicification increases as it goes down. Patchy colored zones, reddish-brown to purple brown with some buff white patches. Moderately argillized, with hematite stains and isolated limonite patches.

At 36.10m section: Quartz vein material was noted occuring as veinlets and small quartz pockets and patches. Highly oxidized pyrite crystals could be observed occuring as criss-crossing micro-veinlets and disseminations. Very fine fresh pyrite crystals could also be observed and occuring as impregnations.

36.45 - 41.80m section: Reddish brown to purple brown with hematite and limonite stain. Some sections exhibits sponge-like structure, and highly porous. Moderately argillized and silicified. Quartz vein material and patches of quartz could be observed locally. Pyrite generally occurs as disseminations and micro-veinlets. Cores are generally more competent.

41.80 - 44.10m section: The same as the previous section, but relatively more fragmented cores with increasing amount of quartz material.

44.10 - 48.65m section: Relatively crushed and broken cores exhibiting reddish brown to purple color. Patchy colored zones and some small color bands could be observed. Highly pitted and spongy-like texture is well observed with quartz veinlets observed as buff-white to milky-white color bands. Quartz veinlets varies in thickness and generally multidirectional.

48.65 - 49.15m section: Quartz vein material was observed, generally a series of quartz veinlets and patches of quartz. Vuggy structure, white to buff white color and is criss crossed by multidirectional pyrite veinlets. Hematite is well observed along the fracture planes and on the surface.

49.15 - 51.20m section: Generally continuous as the previous section exhibiting pitted structures and very porous.

51.20 - 52.60m section: Moderately fragmented core with mottled color which varies from buff white to brown, reddish brown with purple brown tint. Moderately argillized and silicified locally. Slightly porous with hematite stains.

52.60 - 53.60m section: More dense and competent core with some color bands observed. Less porous with moderate hematite stains.

53.60 - 57.60m section: Moderately fragmented and crushed core. Generally continuous as the previous section but becoming more argillized going down the section. Pitted portions could be observed locally.

57.60 - 59.12m section: Highly argillized zone buff white color with reddish brown to purple brown patches. The white portion is generally crumbly and tends to be more plastic when wet.

59.12 - 60.50m section: Reddish brown patchy color, with moderate hematite stains, limonite is present occasionally. Generally pitted with abundant oxidized pyrite veinlets.

60.50 - 61.80m section: Presence of quartz veinlets is highly noted. Quartz veinlets range from 0.10cm to 2.0cm thick, milky white in color and generally vuggy. Quartz material is pervasive within the section occuring as veinlets/microveinlets and patches. Oxidized pyrite is present as microveinlets, disseminations and clusters with the vugs. Milky white, reddish brown and black color bands are well observed.

61.80 - 68.15m section: Reddish brown patchy color with buff white patches and purple brown zones. Generally pitted section showing an almost spongy texture. Moderately argillized slightly silicified section with locally fragmented section. Silicification increases going down the section.

68.15 - 69.60m section: Section is within a quartz vein material zone. Quartz is present as veinlets, microveinlets and patches. Milky white color with vuggy

portions and multidirectional trend. Color bands and colloform-like color patterns are well observed; milky white-reddish brown-purple brown and black bands are very prominent. Highly oxidized pyrite occurs as criss-crossing microveinlets and stockworks and vug-fillings along this section.

69.60 - 73.12m section: Reddish brown patchy colored section, with pitted to sponge-like texture. Moderate amount of argillization and slight-moderate silicification is observed. Hematite and limonite stains are well noted.

73.12 - 75.55m section: Reddish brown to purple brown with white patchy color. Generally same as the previous setion but hematite is more pervasive giving a purple brown tint throughout the section. Silicification increases down the section.

75.55 - 78.85m section: Section is made of highly silicified rock (andesite) with quartz vein materials occuring mostly as patches and veinlets/microveinlets. Breccia like pattern noticeable due to the irregular formation of quartz material and the original rockmass. Color bands are also well observed with abundant pyrite stockworks and microveinlets criss-crossing the whole section. Pyrite (fresh) is discernible as impregnations (1%).

78.85 - 83.09m section: Reddish brown to purple brown patchy color, white patches could also be observed locally. Moderately argillized and silicified. Pitted structures present locally with moderate amount of hematite stains. Bands of hematite stains and highly oxidized veinlets could be observed.

83.09 - 87.15m section: Relative crushed core with isolated competent portions. Generally continuous as the previous section but with lesser degree of silicification and lesser hematite stained surface. Argillization is moderate with powdery and crumbly portions.

87.15 - 90.32m section: Reddish brown to purple brown color with patchy portions. Highly weathered andesite, slightly-moderate silicified and argillized. Hematite stains is pervasive with occasional limonite stains. Pitted zones are recognizable but not so extensive.

90.32 - 94.0m section: Generally same as the previous section but cores are more dense and competent. The degree of silicification increases going down the section. Hematite stains are lesser than the previous section. Color bands are notable with oxidized pyrite microveinlets present as black interlocking bands. Fresh pyrite crystals are present as minute impregnated grains (1-3%).

94.0 - 95.47m section: Continuous as the previous section but is more silicified and small quartz veinlets are present locally.

95.47 - 96.40m section: Made up of quartz vein material. Quartz occurs generally as multidirectional veinlets, patches, microveinlets and isolated pockets. Quartz has a milky white appearance with very limited vuggy portions. Quartz veinlets varies from 0.10cm - 1.20cm thick. Oxidized pyrite microveinlets and disseminations are well noted. Fresh pyrite grains occur as impregnations (=1%).

96.40 - 98.60m section: Patchy colored section which varies from light gray, pinkish white reddish brown and buff white patches. Generally pitted and exhibits a breccia-like texture.

98.60 - 101.32m section: Highly silicified section with patchy color. Quartz material is present as veinlets, patches and replacement of the mafic minerals. Extensive replacement of the original rock mass and the irregular formation of quartz material resulted in the breccia like texture of the rock mass. Original groundmass is still recognizable and exhibits a light gray color. Quartz varies in color, milky white buff white to pinkish white due to hematite stains.

101.32 - 107.57m section: Pinkish-reddish brown patchy color with milky whiteto pinkish white patches. Moderatelyto weakly argillized, moderately silicified with local quartz microveinlets. Breccia like appearance is not so extensive as the previous section. Strong but variable hematite staining. Oxidized pyrite microveinlets crisscross the whole section. Fresh pyrite impregnations (1-3%).

107.57 - 107.78m section: Moderately fresh to moderately altered andesite, light gray with very minimal hematite stain.

107.78 - 109.50m section: Generally same as the previous section, reddish brown patchy color but becoming more silicified going down the section with some microveinlets of quartz material.

109.50 - 110.0m section: Light gray, moderately silicified andesite showing some vuggy portion of the quartz vein material. Fresh pyrite crystal present as impregnations. Contact between the reddish brown and light gray portion is well defined.

110.0 - 110.45m section: Reddish brown patchy color; moderately silicified section.

110.45 -111.23m section: Strongly silicified section with quartz veinlets in irregular and convulated direction.

111.23 - 115.65m section: Reddish brown patchy colored section moderately silicified, pitted in some portions with interlocking oxidized pyrite microveinlets of multidirectional trend.

115.65 - 116.17m section: Strongly silicified section with numerous quartz veinlets ranging from 0.10 - 1.60cm thick, milky quartz showing vuggy portions. Fresh pyrite impregnations present within the vein (1%).

116.17 - 116.48m section: Light gray moderately silicified andesite with well defined contact.

116.48 - 119.0m section: Moderately to strongly silicified section showing intermittent quartz veinlets. Color bands could be observed as milky white, reddish brown and black bands.

119.0 - 119.85m section: Light gray moderately silicified andesite with well defined contact with the reddish brown rock mass. Fresh pyrite = 2-4%.

119.85 - 121.00m section: Reddish brown patchy color section with pitted portions and quartz vein material showing bonded structures.

121.00 - 122.88m section: Light gray with minor reddish brown patches. Moderately silicified with minor quartz veinlets.

122.88 - 125.68m section: Reddish brown to purple brown patchy color, moderately silicified and argillized. Minute quartz veinlets with multidirectional trend noted. Fresh pyrite crystals (=2%) occurs as impregnation. Oxidized pyrite microveinlets crisscrossing the whole section.

125.68 - 128.66m section: Light gray to greenish gray patchy colored section, porphyritic in appearance, slight-moderately silicified with local argillization. Fresh pyrite crystals significantly increases in amount and varies from 5 - 10%.

128.66 -128.88m section: Quartz veinlets present within the section (=0.1 - 0.60cm thick).

128.88 - 131.82m section: Light gray to gray slightly silicified and moderately argillized with gougy portion which tend to be crumbly clayey and sticky when wet. Locally sheared (?) zones could be observed. Fresh pyrite crystals occur as veinlets, disseminations and clusters with variable amount (10-15%).

131.82 - 135.00m section: Generally same as the previous section but with a higher and increasing degree of silicification. Gougy and strongly argillized part is limited only on the lower part of the section.

Irregular quartz veinlet was observed at 133.05m (=0.20cm - 1.00cm thick) with abundant minute fresh pyrite disseminations and veinlets (15%).

135.00 - 136.93m section: Reddish brown to purple brown patchy colored section, moderately silicified with pitted surface texture. Hematite stain is extensive with some portion exhibiting light gray patchy color.

136.93 - 137.70m section: Light gray to gray with very minimal hematite stain. Abundant pyrite crystal disseminations. Oxidized pyrite gives dark gray to black patches (=15%); fresh pyrite occurs as veinlets and disseminations (=10%).

137.70 - 139.71m section: Reddish brown to purple brown with pitted to spongy texture probably due to the oxidation of former pyrite crystals. A quartz veinlet was observed at 137.80m level (=0.50 -1.20cm).

139.71 - 142.50m section: Light gray to greenish gray with white patches. Moderately silicified with intermittent quartz veinlets, some of which exhibits banded structure (milky white and gray to black streaks of oxidized pyrite). Pyrite is extensive and varies from 15-20%.

142.50 - 145.05m section: Reddish brown to purple brown patchy color with greenish gray to light gray portions. Silicification varies from point to point with some portions highly argillized and appears to be gougy. Silicified portion with some quartz veinlets observed at 143.30-144.20m.

145.05 - 147.65m section: Light-dark gray with small whitish portion. Generally argillized and sheared zone exhibiting gouge material which tends to be crumbly and sticky when wet. Moderately broken cores.

147.65 - 150.43m section: Light gray, porphyritic texture and more solid and dense core. Original mafic minerals are replaced either by quartz, pyrite and clay. Moderate to strongly silicified with clayey/gougy portions are confined along fracture planes. Pyrite

content = 8-10%. Minor chrysocola stains and patches was observed at 149.90m level.

150.43 - 154.13m section: Greenish gray to light gray with some portions exhibiting reddish brown to purple brown color. An increase in hematite stain was noted than the previous section. At 153.05 - 154.13m quartz vein material was observed. Milky white to pinkish white exhibiting some vuggy portions with no distinct trend.

154.13 - 154.82m section: Greenish to light gray moderately to strongly silicified section. With quartz microveinlets and veinlets. Pyrite occurs as microveinlets, clusters and disseminations (=15%).

154.82 - 156.80m section: Light gray to reddish brown patchy colored section with moderate hematite stains.

156.80 - 159.10m section: Reddish brown to purple brown with minor light gray portion. Moderately silicified with quartz veinlets and patches.

159.10 - 159.82m section: Light gray colored section, moderately silicified.

159.82 - 161.39m section: Reddish brown with purple brown portion. Moderate to intense hematite coatings. Pitted to almost sponge-like surface is notable, probably the former site of oxidized pyrite crystals.

161.39 - 162.80m section: Light gray patchy colored section with white patches generally porphyritic in texture. Hematite and clay minerals present along fracture planes. Pyrite (=12-15%).

162.80 - 164.20m section: Reddish brown to purple brown with milky white patches. Quartz vein materials occurs as patches and microveinlets. Pyrite =10%.

164.20 - 166.68m section: Light gray patchy colored section with hematite stained portion on the lower section. Moderately silicified with minute quartz microveinlets. Pyrite =12%.

166.68 - 169.09m section: Reddish brown-purple brown patchy colored section. Pitted to sponge like texture is noted on some portions. Generally silicified with patches of quartz vein material and multidirectional quartz microveinlets. Pyrite disseminations =10%.

169.09 - 169.50m section: Light gray porphyritic section. Moderately silicified.

169.50 - 170.25m section: Reddish brown to purple brown at the upper part to light gray going down the section. Generally pitted to sponge like texture.

170.25 - 171.28m section: Light gray to gray colored section, moderately silicified with quartz vein material occuring as patches. Oxidized and moderately fresh pyrite disseminations (=15-20%).

171.28 - 175.23m section: Light gray with isolated reddish brown portion. Porphyritic in texture, moderately silicified with minor gougy portion. Pyrite = 8 - 10%.

175.23 - 175.79m section: Reddish brown with hematite coatings and pitted texture.

175.79 - 178.53m section: Light gray patchy colored section, porphyritic, moderately silicified with minor quartz microveinlets. Pitted surface features and highly argillized/gougy portions noted in some portions but very limited in extent. Pyrite occurs as microveinlets, disseminations and clusters (6-8%).

178.53 - 183.15m section: Light gray, porphyritic texture, moderately silicified, more dense and competent cores. Quartz vein material and veinlets observed at 181.04m. Pyrite occurs as clusters, disseminations and microveinlets (=10-12%).

183.15 - 183.86m section: Buff white to white colored section, powdery and crumbly, generally made up of clay material.

183.86 - 186.40m section: Light gray with small milky white patches, porphyritic in texture. More dense and solid cores. Moderately silicified with intermittent multi-directional quartz microveinlets. Pyrite = 18 to 20%.

186.40 - 186.85m section: Light gray with milky white patches. Quartz vein material occuring mostly as patches and veinlets. Quartz vein material (2.5cm - 4.5cm thick). Pyrite occurs as patches, disseminations, veinlets and clusters (18-22%).

186.85 - 188.65m section: Light gray colored section with reddish brown portion on the lower part. Pitted to sponge like surface is well noted. Pyrite ranges from 10 to 12%.

188.65 - 189.50m section: Light gray colored section with bands and patches. Porphyritic in texture and strongly silicified. Multidirectional quartz veinlets observed as milky white colored bands. Pyrite = 15-20%.

189.50 - 190.25m section: Generally same as the above section but with no quartz vein material.

190.25 - 191.00m section: Light gray with milky white patches. Quartz vein material with quartz occuring as extensive patches on the original rock mass. Pyrite disseminations and clusters exhibits very fine crystal grains. Pyrite = 20%.

191.00 - 194.00m section: Silicified andesite; gray to light gray colour with patches of cream or buff; fine grained; milky quartz veinlets irregularly distributed throughout the section but become particularly dominant in the half meter bottom portion; breccia-like texture noted as milky quartz vein incorporate subangular fragments of the silicified host rock; pyrite is finely crystalline, distributed as disseminations in the groundmass as surface lining of vugs and fractures; core sample is dominantly solid and intact.

194.00 - 197.05m section: Milky quartz impregnated silicified andesite; colloform-like structure noted

within portions enclosed by the quartz vein; angular fragments of the intruded rock still distinctly visible within the milky quartz; pyrite is still prominent as disseminations in the ground mass and is around 5-7% average; oxidation of local portions noted as hematite/limonite stains; vugs and vesicles in the silicified rock are almost always filled up by pyrite; core sample is solid and continuous.

197.05 - 200.05m section: Continuous with previous section; milky quartz vein/veinlets still predominant; silicified andesite is gray to light gray in colour; fine grained, almost cryptocrystalline in the highly silicified portions; variegated textures and structures noted in the quartz impregnated section; swirling bands and breccia-like structures are common; pyrite occurence is patchy although pervasive; rock texture locally vesicular or pitted; pyrite is less than 5% average.

200.05 - 204.32m section: Quartz impregnated silicified andesite continues down section; the interval 201.0m to 201.55m shows distinct colour and textural banding; alternating bands of dark and light coloured material roughly coincide with alternation of vesicular/pitted and solid textured sections; the bands are commonly 1 to 1.5 cm. wide and run fairly parallel with one another; contact between veinlet/veins and the silicified host commonly indistinct; in some portions the boundaries are quite hazy, almost fusing; locally, the veinlets tend to anastomize, sending tentacle-like intrusions into the groundmass; pyrite has replaced practically all the mafic constituent of the silicified rock and constitutes roughly 15 to 20% of the rock mass; pyrite dominated microveinlets are locally prominent.

204.32 - 206.62m section: Continuous with previous section but milky quartz impregnation less pervasive; only narrow (5 to 15mm wide) veinlets were encountered intermittently within the section; rock unit still predominantly silicified and pyritized; pyrite is still around 15 to 20%; core recovery and condition relatively good.

206.62 to 209.70m section: A generally oxidized section

of silicified andesite with very minor portions of relatively fresh (unoxidized) rock; variably argillized at the lower section from 209.2m; red brown to purple hematite/limonite encrustations due to pyrite oxidation very prominent; bright crimson film of jarosite also locally noted; rock mass appears porous and permeable especially down section due to its highly pitted almost sponge-like texture.

209.70 to 212.80m section: Highly oxidized and fragmented rock; variably argillized with the interval 210.6 to 211.6m almost completely clay material; the bright red to purple stains of hematite had been bleached to a light pink to pinkish brown colour; the rock texture is chalk-like to powdery; it tends to be fragile and crumbly; core recovery is around 50% due to the incompetent nature of the rock mass.

212.80 to 217.00m section: Continuous with previous section; highly oxidized and argillized rock; generally fragmented; buff to cream colour with distinct streaks and patches of pink and red; rock mass is chalk-like and powdery when dry and plastic when wet; it tends to disintegrate into a clayey mass when a lot of water is applied; traces of former pyrite dominated microveinlets and veinlets are noted as dendrites of hematite/limonite in a clay groundmass; less argillized portions tend to retain original rock texture and structures; these most likely are the more silicified section of the rock which survived the intense argillization and oxidation that affected the unit.

217.00 - 220.00m section: Oxidized section of variably silicified and argillized andesite; relatively solid and intact core sample; generally cream to buff groundmass with streaks, bands and patches of ochre, red and purple; argillized portions tend to be porous and permeable and highly water absorbent; silicified portions tend to preserve the pre-oxidation textures and structures in the rock; former pyrite veinlets appear as hematite impregnated veinlets in the oxidized rock; they form distinctive red coloured dendrites and cross cutting networks in a generally buff to cream groundmass.

220.00 - 223.00m section: Continuous with previous section; highly oxidized, hematite/limonite impregnated, silicified and argillized rock; slightly fragmented section; variegated colours of buff, red and purple; rock mass appears dense and solid although pitted and vesicular portions were also noted; rock mass retains the original patterns of pyrite distribution prior to oxidation of fine disseminations and veinlet impregnations except pyrite had been replaced by hematite.

223.00 - 226.50m section: Essentially more fragmented than the previous section but retains the same characteristics as the former; argillization appears more prevalent in this section with silicified portions sparsely encountered; rock mass texture is commonly chalk-like; it is porous and highly water absorbent; hematite/limonite impregnations still very distinctive as red and purple streaks and bands in an otherwise buff to cream groundmass; fragmentation of the core sample is most likely due to the crumbly character of the argillized rock.

226.50 - 229.60m section: More or less a continuation of the previous section in terms of rock type and character; the section is highly fragmented in portions; it is still highly oxidized and variably argillized; hematite/limonite encrustations still very prominent especially along fracture and veinlet surfaces; ochre coloured limonite coatings along fractures are particularly striking; rock mass is commonly pitted, almost pumice like in texture; silicified portions tend to be more dense and solid in texture; traces of formerly pyrite rich veinlets still discernible in the groundmass as dendritic or hair-like projections in the groundmass.

229.60 - 233.70m section: Highly fragmented core sample passes on to a more solid and intact sequence down section; core recovery is poor in the entire section and is around 50% - 60%; the rock mass is still variably argillized, becoming more silicified at the last half meter portion; oxidation is still intense with

hematite/limonite encrustation pervasive throughout the section; fragmentation of the core appears more rampant in the highly argillized parts; the texture of the rock mass is typically chalk-like to pumice-like and it is commonly porous and permeable.

233.70 - 236.50m section: Shift to BQ size core; oxidized rock of the previous section passes on to fresh/unoxidized rock; gray to dark gray in colour; generally fine grained; silicified in varying degrees and impregnated by numerous milky quartz veins/veinlets; breccia-like structure noted locally with angular fragments of silicified host rock incorporated into an essentially milky quartz matrix; the rock mass is locally pitted or vesicular with most of the vugs or vesicles lined by cryptocrystalline pyrite; in rare case native sulphur is found within these voids; pyrite constitutes roughly 20% of the rock mass; it is particularly abundant along the traces of quartz veinlets where it forms pseudo veinlets of its own.

236.50 - 240.85m section: Continuous with previous section; veins/veinlets of milky quartz still prominent although the occurence appears to be along intervening zones throughout the section; the andesite is variably silicified, fine grained, gray to light gray in colour; porphyritic and breccia-like texture locally noted; it is also vesicular or pitted in some portions; oxidation of the unit is observed along a half meter interval within the bottom of the section; this shows distinct hematite stains and sponge-like texture of the rock possibly due to pyrite leaching; pyrite content is still around 15-20% overall.

240.85 - 244.40m section: Silicified andesite with abundant milky quartz veins/veinlets more or less evenly distributed throughout the section; the veins/veinlets appear to be multidirectional in orientation and also tend to be variable in size or width; small, angular xenoliths of the silicified rock are relatively common in the milky quartz veinlets; in other portions, the vein material and the intruded rock appear to merge or coalesce to form a light coloured, highly siliceous mass; pyrite is ubiquitous throughout the section

appearing both in the groundmass as a replacement of the mafic minerals and as veinlet/microveinlet material; it is roughly 10-15% of rock component.

244.40 - 248.60m section: The intervals 244.4m to 245.5m and 245.9m to 246.6m are almost entirely milky quartz vein material; it is cream to buff in colour and locally includes xenolithic angular fragments of the intruded host; intervening portions of silicified andesite and lesser veins/veinlets characterize the rest of the section; pyrite occurs as fine disseminations and clusters in the groundmass, locally abundant along quartz microveinlets and fracture fillings; pyrite is 15 to 20% average in the silicified rock but less than 5% within the milky quartz itself; vesicles and voids in quartz veins/veinlets are commonly filled-up by sulphur.

248.6m to 251.85m. Section: Continous with the previous section but the quartz vein/veinlets are not pervasive; variably silicified andesite; gray to light gray colour; fine grained; local oxidized portions show distinct hematite stains; quartz veinlets form irregular networks in the rock; they tend to pinch and swell along poorly defined trends and sometimes form anastomizing projections with the intruded host rock; pyrite is still pervasive in the silicified rock, 10=25%, but is rather rare within the milky quartz veinlets.

251.85m to 254.6m section: Silicified andesite with numerous cross-cutting milky quartz veins/ veinlets; locally argillized and oxidized resulting in the sponge-like texture of the rock, milky quartz veinlets show irregular shapes and trend, they are often vuggy or breccia-like, pyrite in characters sparse in the veinlets but pervasive in the contiguous silicified rock where it averages around 15% in content; porphyritic texture of the rock is noted locally, this relict texture shows phenocrystals of clay minerals (after plagioclase) in a groundmass of quartz and pyrite (after mafic minerals).

254.6m to 258.2m section: Milky quartz impregnations prominent in the upper section but wanes downwards; rock

mass is characteristically porphyritic and variably silicified and argillized; breccia-like structure again noted in the quartz vein transected portion; vugs and voids in the quartz vein are commonly filled up by sulphur; pyrite content is around 10% in this section where it is limited mainly to the silicified rock as disseminations and veinlet material.

258.2m to 261.0m section: Generally fragmented core; silicified argillized in varying degrees; milky quartz veinlets sporadically abundant but is less pervasive than in previous section; porphyritic texture disappears down section passing on to an evenly fine grained andesite; very local oxidized portions noted as narrow hematite impregnated bands; quartz veinlets in this section are characteristically vuggy but barren of any sulphide inclusions; pyrite contents is generally less than 10%.

261.0m to 264.0m section: Fine grained, slightly silicified and argillized; almost homogeneous texture noted throughout the section; milky quartz veinlets noted only at the lowest 30cm section; these consisted of two(2) ten (10) cm wide; hematite stained quartz veinlets cutting through relatively silicified rock; for more noteworthy are the presence of numerous narrow (1-3 mm wide) pyrite veinlets within this section; although locally pervasive, pyrite content is less than 5% average.

264.0m to 267.0m section: This section appears to be a sequence of fine grained and porphyritic textured andesite; the textures seem to grade into one another without any characteristic break or boundary; milky quartz veinlets were not observed to be prominent in this section; the whole section is variably argillized and silicified; microveinlets of quartz dominated by pyrite still notable in some portions, pyrite content is on the average less than 5%.

267.0m to 270.0m section: Gray to light gray, variably silicified and argillized andesite; generally porphyritic texture with appreciable number of milky quartz veinlets noted within the bottom half meter

portion; microveinlets of quartz dominated by pyrite are again prominent throughout the section; they form subparallel; dark streaks across the generally gray groundmass; disseminations of pyrite is rather sparse; fragmentation of the core sample is rather moderate.

270.0m to 273.6m section: Continuous with previous section; variably silicified and argillized andesite; gray to light gray colour; fine grained to porphyritic; pyrite dominated microveinlets still pervasive especially in the upper section becoming less distinct downwards; argillized portions tend to be crumbly and fragmented; the texture is chalk-like to powdery; pyrite content is on the average less than 10%.

273.6m to 277.1m section: The fragmented section passes on to more solid and intact portion; variably silicified and argillized andesite; porphyritic to fine grained texture; gray to dark gray colour; milky quartz veinlets and intrusions again distinctive but also patchy and irregular in both orientation and occurrence; fine grained sections appear to be more silicified and pyrite rich than porphyritic portions; pyrite occurs as very fine disseminations and clusters and averages around 25 to 30% in the more prolific fine grained section.

277.1m to 280.1m section: Silicified andesite; characterized by numerous intrusions of milky quartz veinlets of variable sizes and orientation; breccia-like structures again noted locally wherein xenoliths of the host rock are encompassed within the milky quartz vein; sulphur filled vugs in the veinlets are rather common; pyrite is limited to the silicified host rock and is roughly 10 to 15% average; core sample is relatively solid and intact.

280.1m to 284.0m section: Continuous with previous section; gray to dark gray, silicified andesite; milky quartz veinlets still very distinct but becoming less pervasive down section; the veinlets still occur as irregular bodies with no apparent preferred orientation; rock texture varies from fine grained intergranular to porphyritic; pyrite content is patchy and irregular but would range around 10 to 15%; core sample is slightly

fragmented but recovery is generaly good.

284.0m to287.5m section: Variably silicified and argillized andesite; gray to light gray colour; commonly fine grained; milky quartz veinlets rather sparse becoming rare down section; argillized portions tend to be bleached thus are lighter in colour; they are also more porous and permeable than the silicified portions; pyrite is ubiquitous throughout the section but is more enrich in the silicified portions; on the average, it is around 10 to `15% of the rock mass.

287.5m to291.3m section: Continuous with previous section: gray to dark gray; fine grained andesite; homogenous texture almost throughout the section; silicification is variable in intensity; microveinlets of quartz noted in the lowermost section; pyrite is pervasive especially along fracture surfaces and as disseminations in the groundmass; it is commonly more prevalent in the highly silicified portions and where it averages about 15 to 20%; numerous vugs were noted along the trend of the microveinlets; they are particularly distinct within the half meter bottom section; the core sample is relatively solid and intact with only the lower section found to be fragmented.

291.3m to 294.4m section: Mainly continuous with the overlying sequence but tends to become highly fragmented down section; the upper 1.5m portion is relatively silicified and solid but the subsequent portion is highly argillized and finely fragmented; microveinlets of pyrite are common in the silicified portions, occurring as distinct streaks across the rock mass; vugs that tend to parallel the microveinlets are commonly lined with very fine pyrite crystals; the argillized section is almost totally clay material with remnant pyrite crystals still discernible; pyrite as a whole is around 15% average for the entire section.

294.4m to 298.4m section: Highly fragmented, variably argillized andesite; gray colour; porphyritic texture noted in some portions but texture of more argillized sections tend to be obliterated; very little evidence of milky quartz veinlets found; pyrite appears to be

sparse, almost negligible throughout the section; core recovery and character is generally poor because of the imcompetent nature of the argillized rock mass.

298.4m to 301.0m section: Essentially continuous with previous section but becoming more solid and competent down section; variably argillized, fine grained andesite; microveinlets of pyrite reappears in the more silicified portion down section; veinlets of anhydrite noted for the first time in this section; on the average pyrite is very low in terms of content in the argillized portion and is around 5% in the silicified.

APX. 14 Detailed Geologic Log, MJPP-3

DRILLHOLE NO.: MJPP - 3
LOCATION : BRGY. CAPINANG, SAN DIONISIO

HQ Size Core; 0-2.40m. Generally made up of brown to yellowish brown soil. Highly weathered and argillized rock fragments are present within the section.

2.40m. - 5.30m. Highly fragmented argillized rock. Reddish brown to purple brown with some yellowish tint. Oxidized pyrite occurs as microveinlets, disseminations and clusters with Hematite stains and limonite coatings.

5.30 - 6.62m. Generally more compete and solid section than the previous section with hematite and limonite stains. Oxidize pyrite occurs as microveinlets and disseminations.

6.62m. - 11.55m. Generally the same as the previous section, reddish brown to purple brown patchy color with buff colored groundmass. Multidirectional oxidized pyrite microveinlets with Hematite stains. Vugs and pockmarked portions probably former site of pyrite rick clusters left after oxidation and removal of puyrite crystals.

11.55 - 15.92m. Highly argillized section, almost totally clay material. Buff to brown with light gray tint and reddish brown patches. Oxidized pyrite still observable as microveinlets and clusters.

15.92m - 20.60m. Highly argillized section totally clay material, light gray to buff with reddish brown tint. Crumbly when dry and very sickly when wet with oxidized pyrite and some Hematite stains. Moderately fresh pyrite crystals noted as disseminations (~ 2-4%).

20.60m. - 23.60m. Generally the same as the previous section, buff to light with brown patchy colored section. Highly, argillized, with some portions more competent and not totally transformed into clay material. Minor hematite stains was noted.

23.60m. - 25.92m. Brown to buff color with light gray section and reddish brown tint. Highly argillized

section, but with more competent potions. The more competent cores exhibits a higher degree of hematite stains with oxidized pyrite and shows a lesser degree of argillization than the previous sections.

25.92m. - 27.78m. Buff to light gray to brown going down the section. Higly argillized, almost totally clay material. Fragmented, loose, crumbly to almost gravelly texture. Hematite stains increases going down the section giving a brownish tint.

27.78 - 28.75m. Highly argillized section but more competent cores than the previous sections. Buff to light gray color, with buff white patchy color. Minor oxidized pyrite observed occuring mostly as micro-veinlets. Minimal hematite stains as surface coatings noted.

28.75 - 32.10m. Solid and more competent cores, variegated color of brown, reddish brown, buff to light gray with yellowish tint. Swirling bands of limonite on hematite gives a yellowish, reddish brown to purple brown colored bands. Pockmarked portions is noted, slight silicification with moderately argillized portion to strongly argillize zone going down the section.

32.10 - 33.25m. Buff to light gray color with brown to yellowish brown patches. Hematite stained microfractures noted with oxidized pyrite crystals.

33.25 - 33.85m. Light gray colored section with buff white patches, porphyritic in texture with original mafic minerals no longer discernible. Moderately fresh pyrite crystals present as disseminations fracture fillings and micro-veinlets (pyrite ~ 15 - 20%).

33.85 - 36.10m. More solid and competent cores, generally light gray with variegated colors of light brown, reddish brown to purple brown with buff patches. The rock generaly exhibits porphyritic texture with pockmarked portions. Slightly argillized and silicified with abundant micro-veinlets of oxidized pyrite with hematite stains. Oxidized pyrite exhibits purple brown

to black color. Sample was taken along the whole section.

36.10 - 41.20m. Brown to reddish with light gray patches. Generally solid cores but becoming fragmented going down the section. Hematite stain is moderate with minor limonite stain.

41.20 - 47.00m. Generally solid cores, with variegated colors of light gray, brown, reddish brown to buff patchy color. Hematite lined microfractures are well observed with moderately amount of oxidized pyrite as disseminations and microveinlets. Slight argillization and silicification noted.

47.00 - 50.46m. Less competent cores than the previous section, moderately fragmented. Generally the same as the previous section but becoming more silicified going down the section with an increase of pyrite crystals (12 - 15%).

50.46 - 51.21m. Buff to light gray to pinkish white patchy color. Moderately to strongly silicified with moderate amount of fresh pyrtie crystals occuring mostly as the disseminations. Quartz material shows vuggy portions. Sample was taken in this section.

51.21 - 52.90m. Buff to light gray with brown to reddish brown tint. Moderately silicified and highly fractured cores.

52.90 - 53.60m. Highly argillized section almost totally transformed into clay material. Buff to light gray color.

53.60 - 57.10m. Solid core on top becoming fragmented going down the section. Variegated color of light gray, buff to brown to reddish brown. Moderately argillized, slightly silicified with some portion exhibiting pockmarked surface. Hematite lined fractures well observed.

57.10 - 59.00m. Buff white to light gray with reddish brown patches. Moderately to highly argillized generally crumbly and crushed cores. Hematite stains is well noted.

59.00 - 60.30m. Slightly argillized moderately silicified with variegated colors of light gray, buff, brown to reddish brown patches. Porphyritic in texture with criss-crossing hematite stained, oxidized pyrite microveinlets. Pockmarked surface fractures noted.

60.30 - 64.40m. Generally the same as the previous section, but more fragmented cores with lesser degree of silification and higher degree of argillization.

64.40 - 65.80m. More competent and solid cores, with variegated colors of buff, reddish brown, brown to light gray patchy colors. Multidirectional and criss-crossing microveinlets of oxidized pyrite with hematite stains. Fresh pyrite occurs as specks.

65.80 - 69.10m. Generally the same as the previous section but with highly argillized portion. Argillized portions tends to be crumbly and powdery.

69.10 - 70.35m. Solid cores, with variegated colors of buff white, brown to reddish brown with purple brown patches. Moderately silicified with multidirectional microveinlets of oxidized pyrite with hematite stains is well noted. Pockmarked surface observed at the lower most part of the section. Pyrite ~ 10 - 12% (Sample was taken)

70.35 - 72.85m. Reddish brown to purple brown patchy color with buff to light gray patches. Pockmarked to sponge-like surface feature noted in some portion with hematite coatings and along oxidized pyrite microveinlets.

72.85 - 74.05m. Buff to light gray with brown to reddish brown patchy color. Moderately silicified with some quartz material occuring as patches oxidized kpyrite occurs as microveinlets and disseminations with hematite

stains. Fresh pyrite occurs as specks and disseminations (Pyrite 8 - 10%)

74.05 - 78.15m. Competent and solid cores with variegated colors of bufff, light gray brown to reddish brown patches. Moderately silicified with abundant crisscrossing microveinlets of oxidized pyrite with hematite.

78.15 - 79.15m. Light gray to greenish gray, fine grained and porphyritic in some portions. Moderately silicified with quartz microveinlets and quartz patches. Fresh pyrite crystals occurs as disseminations, veinlets and clusters. Hematite is very limited and confined only along microveinlets and fractures. Pyrite is 15 - 20%.

79.15 - 81.20m Reddish brown to brown with purple brown to sponge-like texture well observed at the middle part of the section. Very minimal fresh pyrite crystals noted.

81.20 - 83.00m. Generally crushed cores the same as the previous section but with a higher degree of argillization

83.00 - 87.85m. Competent and solid cores. Brown to reddish brown with light gray buff colored patches. Slight silicification with moderate amount of argillization. Pockmarked surface fearture is well observed along some point of the section. Oxidized pyrite occurs as dissemination, microveinlets and clusters. Hematite stains with very minor jarosite observed.

87.85 - 90.95m. section : Continous with previous section, red to reddish brown color slightly purplish. Highly pitted to sponge like texture, generally argillized with numerous microveinlets of hematite stained quartz.

90.95 - 93.45m. section : NQ size core. Similar to previous section, but more fragmented core. Sponge like texture still apparent, hematite stain still pervasive

with lower part section highly fragmented. Core recovery is generally poor. Section is variably argillized.

93.45 - 96.65m. Section : Generally fragmented core, red brown to purplish brown color, sponge like texture less apparent. Numerous microveinlets of hematite stained quartz noted. Hematite disseminations after pyrite noted in the groundmass.

96.65 - 99.15m. Section : Variably silicified and argillized rock. Hematite stains very pronouced pitted portions noted in some sections. Argillized section tends to be chalk like in texture. Rock mass tends to be porous and permeable. Core samples, tends to be moderately fractured, recovery is low.

99.95 - 102.75m. Section : Essentially continous with the previous section. Variably argillized and silicified rock mass. Silification is more pronounced in the last one (1) meter section. Argillized portion tends to be massive and dense. Core sample is generally fragmented at upper section becoming more massive at the lower section.

102.75 - 105.95m. Variably silicified and argillized rock. Generally oxidized with patches of portions of relatively fresh rock. Hematite stains tend to be more pronounced at the argillized portions. Unoxoidized portions tends to be silicified and content abundant pyrite (15 - 20%); pyrite appears to replaced all mafic minerals in the groundmass. Fine microveinlets of pyrite also noted. Core samples relatively intact.

105.95 - 108.40m : Continuous with previous section, totally oxidized, hematite and limonite stains very pronouced. Rockmass variably argillized and silicified. Micro breccia like texture noted along the last 2m, section, subangular fragments of quartz material occurs in a hematite stained groundmass. Core quality and recovery generally good.

108.410-111.40m. Section : Variably silicified and argillized rock. Hematite/limonite stained and locally

pitted. Silicified portions tends to be massive and dense. Argillized portions tend to be crumbly and fragmented. Hematite stained microveinlets form dendritic pattern in the silicified groundmass. Core quality and recovery is moderately good.

111.40 - 114.90m. Section : Alternating sequences of argillized and silicified rockmass. Generally hematite stained, but argillized portions tends to be leached. Visicular texture noted in some portions. Bleached portion show minor hematite stain. Core sample is moderately fragmented. Core recovery is around 90%.

114.90 - 116.90m. Oxidized and bleached in the upper portion grading into relatively unoxidized and resh rock down section. Red and purple hematite stains very distinct in the oxidizerd portions. Unoxidized portions showing gray to dark gray, highly sil;icified and pyritized rock. Pyrite content is around 15% occurring as fine crystals replacing the original mafic minerals. Fine microveinlets of pyrite is also noted. Core sample is moderately fractured but relatively intact.

116.90 -120.50m. Section: Relatively unoxidized and fresh rock in the first one(1) meter upper section. Alternating unoxidized and oxidized rock mass is observed at the last 1.20 m. portion. Oxidized portion exhibits red to purple brown color and locally pitted and porous. Unoxidized portion shows gray to dark gray, moderately to highly silicified.

120.50m.-123.45m. section: Oxidized and bleached 1.50m. upper portion grading into relatively fresh and unoxidized rock down section. Red and purple brown hematite stains very distinct in oxidized portion with locally pitted texture. Generally fractured cores with relatively good core recovery.

123.45-127.00m. Section: Generally fractured but intact cores. Generally oxidized rock with minor patches of relatively fresh rock. Hematite stains very pronounced with pitted to sponge like texture well observed throughout the whole section. Generally moderate silicification with slight argillization locally.

127.00-130.50 m. Section: Generally continuous with the previous section with variable amount of silicification and argillization. Oxidized portions exhibits well pronounced hematite stains with quartz patches and microveinlets (pyrite 6-8%). The unoxidized portion exhibits gray color moderately to strongly silicified with abundant pyrite disseminations and microveinlets.(pyrite 8-10%)

130.50 - 134.00m. Section : Generally continous with the previous section, fragmented but intact cores with good recovery rate. Generally oxidized with minor patches of relatively fresh rock mass. Oxidized section exhibits pitted to sponge like texture with well pronouced hematite stains. Variably silicified and argillized with pyrite disseminations and microveinlets. Pyrite 8 - 10%.

134.0-138.20m. Section: Alternating sequence of oxidized and unoxidized rock. Oxidized portion exhibits pitted texture with reddish brown to purple hematite stain. Oxidized and fresh pyrite was noted. Pyrite 8 - 10%, with microveinlets of quartz and patches of quartz. Unoxidized portion is light gray to gray moderately silicified, showing pitted surface with pyrite disseminations (12%).

141.50 - 144.90 m. Section : Upper 0.50m portion, oxidized rock abruptly grading to unoxidized rock mass at 142.00 - 143.00m. portion. Lower portion is generally oxidized rock. Cores are generally fractured but intact. Oxidized portion exhibits pitted texture with pronounce hematite stains. Unoxidized portion is gray, moderately silicified exhibiting prophyritic like texture. Pyrite 8%.

144.90-147.60 m. Section: Generally oxidized rock, variably silicified with highly silicified portion showing quartz veinlets and patches of milky white quartz material. Hematite stain is well pronounced, observed as reddish brown to purple color. Generally pitted to almost sponge-like texture. Moderate amount of pyrite mostly as disseminations and veinlets (8-12%).

147.60 - 151.30m. Section : Generally continous with previous section wirh variable amount of argillization and silicification. Generally fracture cores but intact. Hematite stain is still well pronounced pitted to sponge like texture well observed. Pyrite 8 - 12%.

151.30 - 155.50m. Section : First 1.55m. upper portion is generally oxidized rock, moderately to highly pitted surface feature. Next 0.65m portion is generally unoxidized rock, greenish gray to gray, moderately silicified with pyrite (10%). The last 1.20m. lower portion is oxidized rock highly fragmented and moderately argillized.

155.50 - 159.00m. Section : First 1.20m. upper portion is oxidized rock with minor patches of unoxidized rock. Oxidized portions exhibits moderate amount of hematite stains, highly pitted texture and moderately argillized. The rest down section is generally unoxidized rock, light gray, slight to moderately argillized with pyrite disseminations and microveinlets (Pyrite 6 - 8%).

159.00 - 162.00m. Section: First 0.45m. upper portion is moderately argillized and slightly silicified, generally oxidized with patches of gray to light gray unoxidized rock. The rest down section is oxidized rock moderately to highly silicified with last 1.60m. lower portion is highly silicified with numerous quartz microveinlets/veinlets and patches of milky white colored quartz material. Generally pitted, with well pronounced hematite stains and with moderate amount of limonite. Quartz exhibits vuggy structures, pyrite is generally oxidized with minor fresh pyrite occuring as impregnations (Pyrite 10 - 12%).

162.00 - 166.60m. Section : First 0.65m. upper portion is the same as the previous section highly silicified and pitted. Generally continous as the prevcious section with a lesser degree of silicification. Hematite stain with limonite coatings is well observed. Last 1.20m. lower portion is highly silicified with numerous quartz veinlets and patches of quartz. Generally pitted, with quartz showing vuggy

structure. Pyrite 6 -10%.

166.60 - 171.60m. Section : First one (1) meter upper portion is moderately to highly silicified with quartz veinlets and quartz patches. Quartz exhibits vuggy structure, hematite stained pyrite microveintlets in multidirectional trend is well observed. Hematite is well pronounced with limonite patches. Pyrite is generally oxidized with minor fresh pyrite impregnations. Pyrite 10 - 12%. The rest of the section is generally argillized and variably silicified. Argillized portions exhibits chalk-like texture with off-white patches. Generally pitted with hematite stain in moderate amount. Pyrtie 6 - 8%.

171.60 - 174.55m. Section : Generally oxidized rock with some alternating light gray to gray unoxidized rock. Generally argillized and variably silicified. Argillized portion shows pitted to sponge-like texture. Silicified portion shows microveinlets of quartz with pyrite and line with hematite. Generally hematite is well pronounced thoughout the section. Pyrite varies 6 - 10%.

174.55 - 176.95m. Section : Variably argillized and silicified section. The last 1.40m. down section is moderately to highly silicified rock with quartz patches and microveinlets. Hair-like hematite stained microveinlets of oxidized pyrite is well noted in criss-crossing and multidirectional pattern. Generally hematite is well pronounced throughout the section. Pyrite varies from 6 - 12%.

176.95 - 180.60m Section : Generally argillized with very slight silicification. The last 0.65m. lower portion is moderately to highly silicified, moderately oxidized becoming unoxidized going to the last 35 cm. The oxidized portion is generally argillized with hematite stains and exhibits pitted surface. The unoxidized botttom portion is light gray to gray andesite with an abrupt increase in pyrite disseminations. Pyrite varies 8 - 14%.

180.60 - 184.20m. Generally silicified section,

oxidized portion is well observed with unoxidized portion noted at middle portion of the section alternating with oxidized portion. Oxidized section exhibits light brown to reddish brown with pitted surface texture. Unoxidized portion exhibits light gray to gray, porphyritic and locally pitted. Pyrite is around 8 - 10% . Locally argillized portion is also noted. Core size : BQ

184.20 - 187.80m. Section : Continous with the previous section, oxidized section, moderately to highly silicified with locally argillized portion. Reddish brown to purple brown with patches of yellowish white color. Hematite is well pronounced with quartz veinlets and patches. Hematite stained microveinlets of pyrite is multidirectional and criss-crossing fashion is well observed. Pyrite 8 - 10%. Local pitted texture is also noted.

187.80 - 191.00m Section : Alternating sequence of silicified and moderately argillized rock. The whole section is oxidized, with pitted texture, reddish brown to reddish brown to purple brown. Hematite is pronounced. Quartz veinlets is well observed with patches of quartz material in irregular trend giving a breccia like texture. Pyrite 6 - 8%.

191.00 - 195.30m. Section : Generally silicified section with alternating sequence of moderately argillized portion at the lower part of the section. Generally oxidized with unoxidized portion noted at 192.00 - 192.84m. Unoxidized portion is light gray to gray, highly silicified with patches of milky white colored quartz material. Pyrite 10 - 12% oxidized portion is reddish brown to purple brown, generally pitted with sponge like texture noted locally. Pyrite 6 - 8%.

195.30 - 198.90m. Section : First 1.70m upper portion oxidized rock, variably silicified and argillized. Reddish brown, generally pitted with moderate amount of hematite stain. Unoxidized section is light gray to gray, locally pitted, variably argillized, moderately to strongly silicified and porphyritic. Patches of quartz

material with quartz microveinlets noted. Pyrite occurs mostly as disseminations and microveinlets. Pyrite 10 - 12%.

198.90 - 202.90m. Section : Generally unoxidized rock with minor oxidized portion at the middle portion. Moderately to strongly silicified light gray to gray, locally pitted, porphyritic with patches of quartz and quartz micro veinlets. pyrite occurs as disseminations, clusters and microveinlets. Pyrite 15 - 18%

202.90 - 206.20m. Section : Alternating sequence of oxidized and unoxidized rock. Variably silicified but becoming more silicified at the lower 1.00m section. Unoxidized portion is light gray to gray, slightly to moderately silicified porphyritic andesite. Locally pitted texture noted, pyrite is abundant occuring as dissemination, microveinlets clusters and fracture fillings. Pyrite 15 - 20%. Oxidized portion is reddish brown to purple with some portions noted with yellowish tint. Hematite is pervasive, pitted texture well observed. Pyrite 8 -10%.

206.20 - 209.90m. Section : Alternating sequence of oxidized and unoxidized rock. Oxidized rock exhibits reddish brown to purple brown color, with extensive hematite stains. Pitted texture noted with variable amounts of argillization and silicification. Pyrite present mostly as disseminations and microveinlets (8 - 10%). Unoxidized portion exhibits light gray to gray moderately to highly silicified with quartz veinlets and patches. Abundant pyrite was noted 15 - 20%.

209.90 - 213.40m Section : Alternating sequencce of oxidized and unoxidized rock with last 1.20m. lower section unoxidized. Generally same as the previous section with unoxidized portion highly silicified and oxidized portion is generally argillized with variable amount of argillizatin. Pyrite 12 - 18%.

213.40 - 217.10m. Section : Generally unoxidized section with some alternating oxidized portion. Unoxidized portion is moderately to highly silicified with quartz veinlets and quartz patches. Porphyritic in

texture, with locally pitted texture with original mafic minerals no longer discernible. Pyrite occurs mostly as disseminatins, microveinlets and clusters. Pyrite 10 - 12%. Oxidized portion is generally hematite stained, pitted to sponge-like texture with some pyrite crytals.

217.10 - 212.10m. Section : Generally unoxidized rock with very minor oxidized portion. Slightly to moderately silicified becoming highly silicified in the last 1.20m. down section. Variable amount of argillization noted. Generally same as the previous section. Pyrite 10 -12%.

221.10 - 224.40m. Section : Unoxidized section moderately fragmented in the first 1.0m. upper section becoming dense and intact in the lower section. Light gray to gray, locally pitted, porphyritic in texture, moderately to highly silicified with numerous quartz veinlets and patches of quartz. Pyrite occurs as disseminations, clusters and veinlets. Pyrite 12 - 14%.

224.40 - 228.50m. Section : Generally continous with the previous section, unoxidized, porphyritic andesite. Highly to moderately silicified with patches of milky white quartz and quartz veinlets. Pyrite 10 -12%.

228.50 - 232.20m. Section : Unoxidized section, light gray to gray, moderately to highly silicified with quartz veinlets and microveinlets. Milky white patches of quartz well observed with locally pitted texture. Porphyritic andesite with pyrite disseminations, clusters and microveinlets. Pyrite 8 - 12%

232.20 - 236.00m. Section : Generally continous with the previous section. Solid, dense and intact cores with very highpercent recovery. Highly silicified andesite with numerous patches of quartz material in milky white color. Pyrite occurs as disseminatin, clusters and microveinlets and are generally fresh. Pyrite 10 - 12%.

236.00 - 240.40m. Section : Continous with the previous section. Dense and intact cores with very high percent recovery. Porphyritic andesite, highly silicified with

quartz veinlets and patches of milky white quartz throughout the section. Pyrite is abundant mostly occuring as disseminations, microveinlets, clusters and stringers. pyrite 12 -16%. sulfur crystals is well noted occuring as light yellowish color with well formed crystals.

240.40 - 244.00m. Section : Continous with the previous section. Unoxidized porphyritic andesite, moderately to highly silicified with numerous quartz veinlets and patches of milky white quartz. Locally pitted with abundant pyrite crystal 16 - 20%. Sulfur crystals is also noted.

244.00 - 247.60m. Generally continous with the previous section, moderately silicified with first 1.20m upper portion highly silicified with quartz material exhibiting vuggy structure. The whole section is light gray to gray, porphyritic and locally pitted. Pyrite occurs as disseminations, clusters and microveinlets. Pyrite 8 - 12%.

247.60-251.30 m. Section: generally continous with the previous section. Moderately to highly silicified, porphyritic and locally pitted texture. Solid and dense cores with very high % recovery. Quartz patches and microveinlets well observed, pyrite occurs as disseminations, clusters and microveinlets. Pyrite 8 - 10%. Sulfur crystals are well observed as light yellowish crystals.

251.30m.-254.90 m. Section: Continous with the previous section, moderately silicified porphyritic andesite with middle 1.0m. portion highly silicified with quartz patches. Pyrite is observed in moderate amount 8-12%.

254.90m.-260.40m. Section: First 1.20m. upper portion is light gray, moderately silicified porphyritic andesite with locally pitted texture.Next 2.30m. portion is highly argillized zone, almost totally clay material and gougy in appearance. Light gray with minute quartz grains and minute pyrite disseminations. Pyrite 3-5%. Rest of the section is essentially the same as the first 1.20m. upper portion. The last 30cm. portion is

made up of argillized and clay material.

260.40m.-264.00m. Section: unoxidized section, moderately to highly silicified porphyritic andesite exhibiting pitted texture locally. Highly silicified, portions exhibit quartz patches and quartz microveinlets. Pyrite occurs as disseminations and microveinlets. Pyrite 6-8%.

264.00m.-267.60m. Section: Continous with the previous section. Light gray to gray, moderately - highly silicified, porphyritic in texture with quartz patches and veinlets. Solid and dense cores with very high % recovery. Pyrite occurs as impregnations and disseminations (4-5%).

267.20m.-271.20m. Section: Continous with the previous section. Highly silicified with quartz patches and veinlets. Pyrite occurs as disseminations and microveinlets. Sulfur crystals occurs as disseminations and impregnation 4-5%.

267.00m to 271.20m section: Continuous with the previous section. Highly silicified with quartz patches and veinlets. Pyrite occurs as disseminations and microveinlets. Sulfur crystals occur as light yellowish crystal. Pyrite 6-8%.

271.20m - 276.20m section: First 1.70m upper section is moderately to highly silicified andesite. Light gray to gray color with pyrite disseminations and microveinlets, Pyrite 3-4% . The rest of the section is highly argillized to clay material, light gray to gray color, generally loose and sticky when wet. Pyrite crystal occurs as specks and clusters 3-4%. Core recovery is very low.

276.20m - 279m Section: Generally clay material, highly argillized section to gougey texture. Loose and broken and very sticky when wet. Light gray to gray with pyrite disseminations . Pyrite 2-3%, core discovery is low.

279.20m - 283.0m Section: Continuous with the previous section. Light gray to gray . Highly argillized to

almost totally clay material with gougey appearance, Pyrite 3%.

283.0m - 286.30m Section: Continuous with the previous section. Loose and very sticky when wet. Clay material is gougy with pyrite (3-4%). Core recovery is very low.

286.3m - 289.70m Section: Highly argillized section, almost totally clay material. Light gray to gray, very loose and very sticky when wet. Pyrite 3%

289.70m - 292.50m Section: Continuous with the previous sections, almost totally clay material to gougey texture with pyrite disseminations. Pyrite 3-4%.

292.50m- 295.00m Section: Continuous with the previous section, still highly argillized to clay material, gougy in texture very loose when dry and very sticky to plastic when wet. Pyrite present as specks and impregnations. Pyrite 2-3%.

295.00 - 296.00 m Section: Unoxidized, moderately to highly silicified rock, Porphyritic light gray to gray color with quartz patches and quartz microveinlets. Quartz patches exhibits milky, white color and with vuggy structure locally. Pyrite is present as disseminations clusters and microveinlets. Pyrite 4-7%.

296.60 m-300.15m Section: Highly argillized, gougey to almost totally clay material. Light gray to gray , very loose and very sticky, when wet, Pyrite is present as impregnations. Pyrite is present as impregnations. Pyrite 2-3%. Core recovery is relatively low. .

APX. 15 Detailed Geologic Log, MJPP-4

Drill Hole: MJPP4
Location : Mt. Madarag; Moto, Sn. Dionisio

HQ size core; Light brown soil; crumbly and tends to form irregular blebs when dried; fresh or weathered rock fragments generally absent; from 0.6m to 1.10m soil is more compacted and coherent, tends to follow the shape of the core barrel; soil material passes on ther loose, irregular masses from 2.0m on.

Light brown soil; indistinguishable from overlying material; fragments becoming more common; slight variation in texture and shape of soil noted within the section 3.85m to 7.00m.

Powdery and lighter colored soil noted within 7.9m to 8.9; abundant weathered rock fragments.

Clayey soil. generally sticky when wet; brown colour; minor rock fragments.

Generally clayey soil up to 14.0m depth becoming more crumbly and loose at the lower section; passes on to fragmented and weathered rock after the 14.0m level.

Fragmented rock; gray to bluish gray colour, stained by brown soil; rock appears to be fine grained andesite; slight argillization noted.

Red to purplish-brown andesite (%) up to 17.0m level; silicified with abundant hematite and limonite stains; abundant microfractures noted within the section resulting in the fragmented character of the core; the rock is commonly pitted possibly due to the oxidation of pre-existing sulphides.

17.0m to 18.0m section: Rock passes on to lighter coloured and clay rich andesite; very crumbly and fragmented; gray and purple stains still very distinct; speccularite locally abundant .

18.0m to 20.3m section: Fragmented and argillized